DRUG&CHEMICAL MARKETS

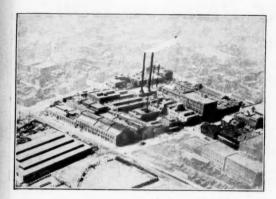
Established 1914

A Weekly Business Paper for Those Who Make, Sell, or Buy Chemicals, Dyestuffs, Drugs, Essential and Fatty Oils

Vol. X

NEW YORK, FEBRUARY 1, 1922

No. 5



Actual photo of Monsanto Chemical Works' Plant in St. Louis, Mo., taken from an aeroplane at an altitude of about 1000 feet.

Stocks of Glycerophosphates Monsanto, Salicylates and other Monsanto fine and medicinal chemicals are carried at St. Louis, New York and Chicago.

Regarding Glycerophosphates

The past decade has witnessed vast improvement in the quality, and hence the therapeutic value of Glycerophosphates.

In 1911 Monsanto created new standards for these products by introducing Glycerophosphates of a purity far excelling any then known. These Monsanto Glycerophosphates were practically free from impurities existing in the foreign products on the market at that time.

The United States Pharmacopoeia confirmed the correctness of our then existing standards and adopted them.

It has been our constant aim to improve wherever possible the quality of the various Glycerophosphate salts and our efforts have been attended with considerable success. The quality of the products now manufactured by us, is, in fact, superior to that required by the present Pharmacopoeia, which was published approximately six years ago.

Glycerophosphates Monstano are of high purity and are preferred in the manufacture of elixirs, tablets, and other pharmaceutical preparations.

Monsanto Chemical Works

New York: 12 Platt Street Chicago: 209 N. LaSalle Street

Monsanto Glycerophosphates
Are the Purest

DRUG

DUPONT

VAT DE ACID CHROME BASIC SULFUR DIRECT

DYESTUFFS

Pontachrome Blue Black R Conc.

SUPERSEDES

Pontachrome Black 6 BX

Pontachrome Blue Black R Conc. is superior to Pontachrome Black 6 BX in solubility, brightness of shade and tinctorial content.

It is perfectly soluble and so can be used in machine dyeing, if a special procedure is followed.

Pontachrome Blue Black R Conc. can be dyed by the top-chrome method.

Navy Blues of excellent fastness to light, weather and wear, can be produced with it in combination with Pontacyl Sulphon Blue 5 R Conc. and Pontacyl Violet C 4B.

E. I. du Pont de Nemours & Co., Inc.

Dyestuffs Department
WILMINGTON, DELAWARE

Branch Offices:

NEW YORK

BOSTON

PROVIDENCE

PHILADELPHIA

CHICAGO

CHARLOTTE, N. C.

Olive Oil "Chiris"

Made from the first pressings of carefully selected olives, gathered in the ancient, world-famous olive orchards of Southern France. The best olives come from matured trees.

Making olive oil is an age-old art, which modern mechanical processes have failed to improve. The olives are laid in beds, and subjected to powerful crushing between large stone wheels. This crushed mass is again pressed between mats, first pressings naturally giving the best quality oil. The oil is skimmed from the receiver, and after several decantings is placed in large earthenware jars. At no time is it allowed to come into contact with metal. After standing several months, it is filtered and ready for the market.

This is the way in which Olive Oil "Chiris" is made. We offer it as an oil of superior quality and purity, answering all the requirements of the U. S. P., containing a minimum of free fatty acids, and suitable for medicinal as well as domestic uses.

It is packed in five gallon, one gallon, half gailon, one quart, one pint, and half pint tins,

PARIS
BAUS ROUX
BOUFARIK
GRASSE
CHUNG KING



LONDON REGGIO MESSINA CAYENNE HAIP HONG

ANTOINE CHIRIS COMPANY

ESTABLISHED IN GRASSE, FRANCE,

147-153 WAVERLY PLACE

NEW YORK

American Works. Delawanna, N. J.

DRUG &

Its Wide Use a Guarantee

The wide use of Calco Methylene Blue is the result of the experience of scores of dyers who have found it a dyestuff of remarkable quality. The stamp of approval given by these men is an asset we prize highly. If you have still to use this color for the first time it is the best kind of recommendation for you.

We recommend Calco Methylene Blue to silk and cotton printers for blotch and discharge styles and aniline resists. It is extensively used for dyeing paper and vegetable tanned sheepskin. Excellent logwood blacks on silk can be produced in conjunction with Calco Chrysoidine V

The established Calco policy of manufacture applies to Methylene Blue just as to every other dyestuff and intermediate—namely, it is one of a limited number highly specialized We can, therefore, offer this unusual quality to you at surprisingly advantageous prices.

Samples of various types and their prices sent at your request.

THE CALCO CHEMICAL COMPANY Bound Brook N.J.

New York Boston Philadelphia Chicago

ISSUED EVERY WEDNESDAY

DRUG & CHEMICAL MARKETS

PUBLISHED EVERY WEDNESDAY BY

DRUG & CHEMICAL MARKETS, INC.

WILLIAMS HAYNES, President
IRA P. MACNAIR, Secretary F. F. BURGIN, Treasurer
Publication Office

3 PARK PLACE, NEW YORK, U. S. A.
*Telephone 0440 Barclay Cable Chemmarket

Home Life Bldg., Washington, D. C. 80 Fenchurch st., London, E. C. 3. 19 Rue Auber, Paris 40 Gr-Burstah, Hamburg 18 Yamashita-cho Kyobashi-Ku, Tokyo

Entered as second-class matter, Dec. 7, 1914, at the post office at New York, N. Y., under the Act of March 3, 1879.

SUBSCRIPTION RATES
United States, Cuba and Mexico \$4.00 a year; Canada \$4.50 and
Foreign \$5.00 a year, payable in advance. Current Copies, 10 cents.
Back Copies, 25 cents. A Binder for this Journal @ \$1.00 Postpaid.

Table of Contents

EDITORIALS—	
Business Men Favor Tariff Board	263
Narcotics and the Reformers	263
Mistakes in Ordering Chemicals	263
Why Add to Unemployment?	264
FEATURE TRADE ARTICLES-	
What Makes a Chemical Salesman? A Few	
Salesmen of the Industry Give Their	
Views on Those Characteristics Which	
Come Nearest to Producing the Ideal	
The Potash Situation in the United States.	
Germany's Advantage in Freight Rates and	
Huge Natural Deposits Makes Competi-	
tion in Prices Impossible on the Part of	
American Producers. By John Walker	
Harrington	267
TRADE NEWS-	
National Chamber's Referendum Vote Favors	
Tariff Board to Fix Rates	269
Changes in Du Pont Dye Department	269
American Manufacturers of Cyanide Ask 331/8	
Per Cent Ad Valorem Duty	271
Senator Harris Introduces Resolution for In-	
vestigation of the Fertilizer "Trust"	271
Carriers Handled Over 20 Million Pieces in Per-	
fect Package Test	273
Ruling of Commissioner of Internal Revenue on	
Forms for Reporting Narcotic Sales	285
Wool and Cotton Prices During 1920-21 With Comparative Diagrams on Consumption	289
German Tanning Extract Trade Now Con-	
trolled by An English Company	291
Books of Trade Interest	312
MARKET REPORTS—	012
Heavy Chemicals276	-277
Fine Chemicals278	-279
Intermediates and Dyes280	-281
The Oil Market	2-283
Crude Drugs284	-285
Essential Oils286	5-287
The Consuming Industries288	3-289
Foreign Markets290	-291
PRICES CURRENT	292
IMPORTS	310
WANTS AND OFFERS	315
Foreign Markets	291 292 310

INDEX TO ADVERTISERS 318



Acids

SULPHURIC Hydrochloric NITRIC MIXED ACID

> Commercial and Chemically Pure Grades-In All Strengths

Salts

SULPHATE ALUMINA (For Paper Makers and Water Works) AMMONIA ALUM U. S. P. TRISODIUM PHOSPHATE Hyposulphite Soda FLUORIDE SODA BISULPHITE SODA Anhyd. Powder and Liquid TIN CRYSTALS EPSOM SALTS U. S. P. and Technical GLAUBER'S SALT

General Chemical Company

25 Broad Street, New York

Baltimore Buffalo Chicago

Cleveland Denver

Montreal Philadelphia Pittsburgh

Providence San Francisco

Easton

Cable Address: Lycurgus, New York.

40001-10001-10001

Seattle

tari on dep met

opi hav

cate

the

dec pon mon

bee

ing

reas des dur

pro

to ide

able

its

wit

con

bak

adl

adj

of min to close few and omin resifor

the

lice



REFINED COAL-TAR PRODUCTS

NOTE: This is the first of a series of advertising talks dealing with the characteristics and uses of Barrett Standard Refined Coal-Tar Products.

No. 2 Benzol, Toluol and Xylol

These products, the three lowest boiling constituents of coal-tar, we separate in pure form. They are not strictly C. P. (chemically pure) but meet commercially accepted specifications as follows:

PURE BENZOL—100% must distill within a maximum range of 2° C., this range to include the true boiling point of Benzene (80.2° C.). Color shall not be darker than No. 4 by Barrett Standard Method.

PURE TOLUOL—100% must distill within a maximum range of 2° C., this range to include the true boiling point of toluene (110.4° C.). Color shall not be darker than No. 4.

PURE XYLOL—Maximum distillation range of 5° C. (137° to 142°) or of 10° C. (135° to 145°) as desired. Color shall not be darker than No. 6. Special close fraction rich in Meta Xylol can also be supplied for nitrating purposes.

These products are starting points for preparation of a great number of chemicals in the nature of dyestuffs, pharmaceuticals and synthetic perfumes. They are basic materials for manufacture of explosives and have special uses in the rubber, paint and varnish, extraction and other fields.

Write for further information.



Chemical Department

40 Rector Street

New York, N. Y.

ISSUED EVERY WEDNESDAY

DRUG & CHEMICAL MARKETS

3 PARK PLACE, NEW YORK

VOLUME X, NUMBER 5

[FEBRUARY 1, 1922

BUSINESS MEN FAVOR TARIFF BOARD

The Chamber of Commerce of the United States has completed a referendum vote on fundamental tariff questions, and the results put the chamber on record for policies that would cause important departures from earlier American procedure and methods. In view of domestic and international conditions, such departures are essential, in the opinion of the committee whose recommendations have now been supported by the chamber's membership. A preliminary count of the ballot indicates that the vote did not commit the chamber on the question of American Valuation, and that a decision was lacking also on the question of postponing tariff legislation until conditions become more settled.

The program to which the chamber has now been committed by its membership, and incorporation of which it will vigorously advocate in pending tariff legislation, includes flexible tariff rates to be administered by a Tariff Adjustment Board; reasonable protection for American industries in destructive competition; maintenance of the antidumping principle; encouragement of export trade, and measures to meet foreign discriminations. The proposal of the chamber that a new body be created to administer adjustable rates is made with the idea that the Tariff Commission would make available to the new board pertinent facts gathered in its investigation and that the adjustment board with quasi-judicial functions should be distinct from a commission making investigations.

NARCOTICS AND THE REFORMERS

Undoubtedly, as long as the American people continue to elect and send to Congress "butchers, bakers, and candle stick makers," and as long as this heterogeneous group takes upon itself the responsibility for safeguarding morals instead of adhering strictly to the problems of economic readjustment, just so long will the pressing business needs of the nation be neglected, and will matters of an involved technical nature be ignorantly administered. The attempts of the reform groups to jam through reform legislation has repeatedly clogged the channels of Congress during the last few years and held up such matters as tariff, finance, and numerous other measures vital to economic readjustment and stabilization. Legislative restrictions emanating from the Congressional "reform group" have become extremely harmful to the American chemical and drug industries, as, little by little, the reformers have surrounded the trades with a band of "don'ts," regulations, and licenses,—a pure case of "Government interference in legitimate business" almost beyond the point of endurance.

The introduction and recent revival of H.R. 2193, so-called Rainey Bill, for the stricter regulation of the export and trans-shipment of narcotics, is a typical example of loading the drug trade with another restriction, unwise and unjust, dictated by ignorance and emotionalism rather than by scientific, practical knowledge based on exact facts resulting from accurate investigation. In no part of the framing nor committee consideration of this bill, have physicians, pharmacists, nor chemists played a part. The bill is aimed primarily at the shipment of American narcotics to Japan for resale in China, but the adoption of the Japanese narcotic law in early 1921 obviated the necessity of this act by an American Congress. Furthermore, the export statistics on narcotics definitely show that this former narcotic trade through Japan has been practically eliminated by the regulations of the Japanese themselves.

Instead of conferring openly with the American manufacturers and exporters, and thrashing the thing out in a sensible manner, the steering committee evidently plans to jam the Rainey Bill through without consulting the drug trade and without committee hearings on the matter. The reform groups still use their same typical "upright and square" methods to get results, much the same as was used in forcing through some of the alcohol regulations six or eight months ago.

MISTAKES IN ORDERING CHEMICALS

In placing orders for chemicals in foreign countries it is advisable to state the chemical formula and the percentage of each constituent required, writes a European correspondent of Drug and Chemical Markets. The factory can then take samples and make analyses which would ensure delivery of the right product, and misunderstandings which often develop into law suits would be avoided. The chemical terms used in different countries are not uniform, and in some cases the constituent parts are so nearly the same percentage that the manufacturer cannot decide which product is wanted unless the order states the formula specifically, giving not only the percentages but also the component parts of the compound.

Several recent inquiries received by Hamburg firms are cited to illustrate the liability to errors for which the manufacturer was not responsible. In one case the buyer wanted saltpeter and received a quotation on Chilian nitrate of soda. A shipment of "fluorspar 98 per cent," as requested by cable from New York, contained 98 per cent sul-

fate of barium, whereas the purchaser wanted 98 per cent calcium fluoride. A Brussels inquiry for "sulfite d'ammoniaque" could not be filled because even analytical chemists were unable to decide what was wanted

Cablegrams are not as expensive as law suits, or misstatements that lead to the shipment of the wrong product, and more care in stating the inquiry or order, even to the extent of doubling the cable charges, is advisable. If the order is correctly stated in the first place, the buyer will avoid cabling explanations, and the consequent delay in making the shipment.

WHY ADD TO THE UNEMPLOYED?

The decision of the Conference on the Limitation of Armament to prohibit the use of poison gas by international agreement has been followed by the dismissal of hundreds of employees at the Edgewood Chemical Warfare Camp, Maryland, and at many other places where experiments in the use of gas were being made. While this action may not add materially to the army of unemployed, it does not help the situation which has been growing worse, recently, instead of improving as seemed to be the case at the close of the year. When the work on warships is discontinued, the navy yards will feel the effects even more keenly than other Government departments. In New York alone 250,000 workers are unemployed, according to the most recent statistics, and 75,000 of these are said to be ex-service men. What is the Government doing to relieve the situation? Committees have investigated and reported, and plans have been outlined for road building and other construction work, but time passes and nothing is done to relieve the distress. Why add to the misery by throwing men out of work at such a critical time?

The horrors of the great war appear to be slipping onward one by one. As a result of the removal of the war tax on dice with the beginning of 1922, a well-known drug broker in New York offers imported ones at lower prices. "Our stock of dice is now in port, and orders that we have on file will be filled at the new reduced prices." According to a member of the Salesman's Association, the original cost of the "bones" is nothing as compared with the cost of what might be termed "upkeep."

According to the annual trade review of the St. Louis Chamber of Commerce, there was a sharp falling off in business in drugs and chemicals during the opening months of 1921, followed by a gradual revival towards the close of the year. The year's business is estimated to be \$40,000,000.

Dr. W. J. Hale, director of the research laboratory of the Dow Chemical Co., delivered an address before the Rochester, N. Y., Section of the American Chemical Society, Jan. 23, on "The Chemical Awakening of America."

The dinner of the Cleveland Chemical Salesman's Association has been indefinitely postponed, owing to illness of several leading members of the association.

The Editor's Correspondence

Importance of Duty on Cyanide

Editor, DRUG & CHEMICAL MARKETS:

The tariff situation as regards the manufacture of cyanide is of such importance to many industries that I wish to draw the attention of your readers to the following facts:

If cyanide salts, compounds, and mixtures containing cyanide are allowed to remain on the free list, the manufacture of cyanide must be discontinued in the United States.

The American manufacturer of caustic soda will lose the market for approximately 15,000,000 lbs. of caustic soda per year.

The American producers of ammonia will be obliged to find a new market for upward of 6,000,000 lbs. per annum, while the market for over 7,000,000 lbs. of American burned charcoal will be lost to its producers.

The American industry established under the protection afforded by the Payne-Aldrich Tariff Act, enlarged and increased during the world war to supply all the domestic needs of the United States, will be destroyed. The money invested in this industry will be lost, and the force of men especially trained for the economic production of the highest grade cyanide known to chemistry, will be thrown out of employment.

Last but not least, the consumers of cyanide in the United States will be entirely dependent upon the foreign producers for their supply of this chemical which has become so necessary in the various industries. The future can best be judged by the history of the past; therefore, it is not necessary to be a prophet or the son of a prophet, to know what will happen to the American consumer of cyanide when the American producer is driven from the market by unrestricted foreign competition.

THE ROESSLER & HASSLACHER CHEMICAL Co., By P. Samuel Rigney, Asst. Treasurer.

About 531,000 short tons of lime, valued at \$24,536,000, were sold in the United States, including Hawaii and Porto Rico, in 1921, according to an estimate made by the United States Geological Survey, Department of the Interior, from reports made by the principal producers. This quantity is less than that sold in any year since the Survey has collected its statistics and is 29 per cent less than that sold in 1920. The average value per ton in 1921 is estimated at \$9.69. In 1920 it was \$10.52, and in 1919 it was \$8.84.

George R. White, president of the Potter Drug & Chemical Co., died at his home in Boston, on Jan. 27. He was a director of the First National Bank, and other institutions. Mr. White donated and equipped a building some years ago for the Massachusetts Coliege of Pharmacy.

Drugs, medicinal and pharmaceutical preparations were imported by Canada, during November as follows: From Britain, \$76,294; United States, \$138,675; other countries \$26,718, total \$241,678; as compared with imports from Britain, \$105,126; United States, \$143,281; other countries, \$23,955; total, \$272,362 for November, 1920.

Extensive deposits of kaolin are reported to have been discovered in Austria. In this connection it is proposed to erect a refractory plant at Wellersdorf. bea ter at jus

inc

are

are

DRU

J.

—As
can
perioterri
a ce
side

Alse

of 1

far

this

of o

dye acquesou variabuy of work

to

san

doe for the high

na a kn

su

What Makes a Chemical Salesman?

A Few Salesmen of the Industry Give Their Views on Those Characteristics Which Come Nearest to Producing the Ideal

NOW thyself." Plato's advice applies also to chemical salesmen. Most salesmen, particularly those who have sold goods during the last ten years or so through the flush of war-time demand, take it for granted, if they have been successful, that they are "world-beaters" and let it go at that. How many salesmen really know their strong points—the characteristics which brought them success, and how many know the weak spots, the ones which crop up at the most inopportune time and lose the sale? Introspection, self-analysis unbiased and stern, is just as difficult, but just as revealing, as in Plato's day. This brings up the question of what characteristics in a chemical salesman best make for success. A few well-known salesmen in the industry, most of them of long service, have given their views on this subject. Of course, there are only a dozen of them representing a small part of the whole, but nevertheless, the fact that they are in different lines of the chemical industry, and from different parts of the country, gives their views weight which should not be lost sight of.

J. E. Moore, Grasselli Chemical Co., Charlotte, N. C.—As to the greatest asset which a chemical salesman can possess I wish to state, as far as my personal experience is concerned, this covers a great deal of territory. I believe a chemical salesman should have a certain amount of technical knowledge, but I consider practical experience with his line far better. Also, I think a man should possess a certain amount of personality and by all means perseverance and so far as acquaintanceship goes, in a great many cases this is a greater asset than anything else in the sale of chemicals and dyestuff.

I have had several years experience in chemicals and dyestuff and I wish to point out an instance where acquaintanceship counts. In traveling through the Southern States I have come in contact with buyers at various mills who would say, for instance, "I have been buying my products from Mr. John Doe for a number of years and have known him for a long time, and would not think of buying from anyone else even at a reduction in price of 5 to 10 cents per pound for the same product." This is just an example and I am sure every man who has had dealings with sales of chemicals had had the same personal experience.

George Ashworth, Dow Chemical Works, New York.—It is the writer's personal opinion that undoubtedly the technically trained man in any vocation has the edge on a man who has not been privileged to acquire same. Nevertheless the biggest asset which a salesman can have, and which is absolutely essential in addition to training and personality, is character, and although he possess both training and personality and is void of character, and also, the house he is representing does not have the same high ideals, he cannot hope for success. Therefore, the writer fully believes that the man, equipped and representing the house with high ideals, will be the winner in the times which are alread.

Clarence Morgan, Rockhill & Vietor, Chicago.—The chemical salesman in the past five or six years has not naturally had to be a practical or technical man, as a great, many people entered this field that had no knowledge whatsoever of conditions, raw material, sales, etc.

The writer can only say in his experience, the most successful salesman is usually made up of more than one qualification,—personality with an amiable disposi-

tion and fairly even tempered at all times—neat and clean and with a fair knowledge of his line, being careful not to impress upon the buyer, no matter how intimate his knowledge may be with the line he is selling, too much of his own knowledge—being a good listener and a good talker about his own items—clean, square dealing, prompt deliveries and diligence to the customer's order after it reaches his own house and until the goods are delivered.

It is the writer's opinion that a sale is not made until the check is actually received for the goods delivered and a good salesman never releases his obligation until the money is received by his firm.

D. S. Moss, Newport Chemical Works, Passaic, N. J.—It is the writer's opinion that the greatest asset that a chemical salesman or any salesman can possess is a thorough knowledge and understanding of each individual prospect, or customer, and an honest belief in the products he has for sale. It cannot be denied that entirely different tactics must be used in approaching different prospects and it is often necessary to find some subjects, separate from business, to arouse interest and gradually work back to your real object.

It depends upon the customer whether the greatest asset is personality, technical knowledge, perseverance practical experience or whatever quality he demands of the salesman. It is up to you to anticipate what he expects. Therefore, knowing your prospect is by far your greatest value. Belief in your product is next. What remains can be about equally divided between perseverance, technical knowledge, practical experience, and acquaintanceship with a slight advantage to personality which puts you in position to use your other qualifications.

John L. Dabbs, E. I. du Pont de Nemours & Co., Charlotte, N. C.—Making a sale depends very largely on the prospect being led to see articles in question from the view-point of the salesman. Different salesmen go about this in different ways. Salesmanship whatever that means, is essential; but in the writer's opinion, salesmanship plus a thorough knowledge of the particular article being offered is far superior to salesmanship minus this quality. A knowledge of dyestuffs and chemicals is not absolutely necessary but very beneficial. Other things being equal, the salesman that is thoroughly trained has the advantage over one who has not.

W. E. Weinz, Grasselli Chemical Co., Chicago.-I be-

D

th

to

lieve that a successful chemical salesman should have the following qualities: technical knowledge, practical knowledge of his line, personality, perseverance and acquaintance.

All technical knowledge is worse than nothing at all. There is a happy medium, and that is sufficient technical knowledge that will enable the salesman to see the cause of the troubles his customers may be having. He should have a thorough practical experience with his line so that if necessary, he can go into the plant and show his friends the right way to use whatever he may be selling. When a salesman has perseverance he will be a type that will take his coat off and apply himself to his task. He should have personality that will command respect and confidence. When he has acquired the above qualities his acquaintance will naturally accumulate. Acquaintanceship without the above mentioned qualities is not a business acquaintance.

E. J. Zillessen, Liberty By-Products Works, Hawthorne, N. J.—From my personal experience in the sales departments of the Beckers Aniline & Chemical Co., National Aniline & Chemical Co. as well as in our own company, the Liberty By-Products Works, Inc., I have found the three big essential qualifications to be practical experience, perseverance, and acquaintanceship. Especially in the sales force of concerns handling chemicals, dyestuffs, etc., practical experience today is of the utmost importance. The salesman who is able to demonstrate the material he sells in a practical way, will be by far more successful today than one who is simply able to talk about his products.

Regarding perseverance; with the strong competition of today and with the European concerns coming in more day by day, perseverance in my opinion, is cer-

tainly a very strong asset.

Acquaintanceship, when considered in the right way is an asset that every salesman or sales manager that I have come in contact with has considered to be of

paramount importance.

We will take for an example a case wherein a salesman has offered a product to a certain concern, and this same product has been turned down by the concern in question. If in this case there is a colorful acquaint-anceship between the salesman and purchasing agent, it is by far more easy for the salesman to find out just why his product has been turned down and just what improvements, etc., can be made in this specific case.

MORE COMING!

Additional views on "What Makes a Chemical Salesman?" will be published in Drug & Chemical Markets of next week, Feb. 8. Lack of space in this issue makes it necessary to publish these opinions in two sections, each being given in order as it was received at the editorial office.

The last half is just as good as the first! Written by real chemical salesmen whose views are seasoned by pre-war, during-thewar, and post-war selling experience.

- R. A. Carmichael, formerly of the Pepsodent Co., Chicago, is now assistant general manager of the Lambert Pharmacal Co., being chiefly concerned with the merchandising of listerine tooth paste.
- H. T. Murray is with the Foamite Firefoam Co. He was formerly with the Certainteed Products Co.

Trade Notes and Personals

- C. A. Hedden, formerly associated with Armour & Co., Chicago, is now sales manager for Lazell, Perfumer, Newburgh, N. Y.
- E. J. Voss, of the Graham Brothers Soap Co., Chicago, has been elected president of the Chicago Perfumery, Soap and Extract Association.

The Semet-Solvay Co.'s New York sales office is now located at 40 Rector st., on the sixth floor, with telephones Bowling Green 2878 and 2879.

Lloyd A. Hall has resigned as manager of Vodin, Inc., to establish a business on his own account under the name of the Chicago Chemical Products Co., Chicago.

The Pacific Chemical Co. moved Feb. 1 to large quarters at 70 Cliff st., New York. The company was able to retain the same telephone numbers, Beekman 8257, 8258, and 8259.

The Census Bureau is sending to the chemical, dye, and drug trade the blanks for manufacturers to fill out, giving details of cost of materials, value of products, salaries and wages paid.

William J. Wiscott became manufacturing manager of Wm. McMurray & Co., St. Paul, Minn. on Feb. 1. He was formerly with McCormick & Co., Baltimore, for four years as assistant chief chemist.

John M. Goetchius was elected a Director of the International Agriculture Corporation to succeed J. R. Floyd, resigned. Other Directors were re-elected at the annual meeting of stockholders on Jan. 25.

Fred P. Baker, assistant director of the Boston station of the School of Chemical Engineering Practice of the Massachusetts Institute of Technology, has resigned to accept a position as chemical engineer with the Procter & Gamble Co., Cincinnati.

Dr. Frank R. Eldred, director of the scientific division of Eli Lilly & Co., Indianapolis, has resigned to engage in consulting work under the firm name of Eldred & Aitkinson. Mr. Aitkinson was formerly chief chemist of the American Hominy Co.

- F. M. Feiker, assistant to Secretary of Commerce Hoover, is again in his former position with the McGraw-Hill Co., New York. He has not however, completely severed his relations with the Secretary or the department, but will continue in a consulting capacity.
- G. H. MacFarland has been elected president of the E. W. Gillette Co., Ltd., baking powder manufacturers of Toronto, Canada, to succeed William Dobie who retires after 42 years service, becoming honorary president. Mr. MacFarland has been general manager of the company for several years.

Myron C. Herrick, American ambassador to France, recently presented the Edward Longstreth Medal to Professor Bergonié, of the Bordeaux Mixed Faculty of Medicine and Pharmacy. This medal was awarded by the Franklin Institute of Pennsylvania to the eminent French authority on electro-magnetism for his method of localising metallic fragments lodged in the muscular tissues. He was thus instrumental in saving many lives during the war.

Potash Situation in the United States

Germany's Advantage in Freight Rates and Huge Natural Deposits Makes Competition in Prices Impossible on the Part of American Producers

By JOHN WALKER HARRINGTON

FOR a mess of potash the makers of that useful chemical in the Uuited States say that the birthright of the American fertilizer industry has been sold. In a statement it is made to appear that the potash manufacturers consider that they have been "betrayed" by the interests, which, when this country was at war with Germany, encouraged the infant industry of extracting potassium from the stranglehold of nature. Now that the inexhaustible stores of the German mines are again available, the fertilizer companies have signed an agreement to buy at least 75 per cent of their potash of the Kali Syndicat and our American potash pioneers are left deserted at the shores of their own bitter lakes. With every one of the 53 native plants closed and the German "monopoly" again on the job, they are indeed in a bad way. The Germans, on the other hand, profess to be surprised by their own moderation, for before 1914 they used to insist on getting all the American potash trade, and now they are quite willing that the other 25 per cent should be purchased in Alsace, or even on this side of the Atlantic, provided that the domestic manufacturers can furnish any. The champions of the American makers are seeking to get through a tariff of fifty cents a unit for the first year, in the hope of reviving an industry now in a state of suspended animation,

Output In the United States

Since "business is business" even in the domain of industrial chemistry, what is to be done about this situation? Is there any probability of our building up in this country such a potash reserve that the industry will be able to cope with the German chemical octopus both in peace and war, and proclaim the chemical independence of the United States? In order to consider this matter in every phase, it is well to recall that Germany is easily producing a million tons of potash salts a year and is barely scratching the surface of her enormous natural deposits. The normal consumption in the United States is 250,000 tons of which probably 95 per cent goes into fertilizers. The American plants, when they were flourishing during the War, produced at the top notch, 50,000 tons and their owners declared that the full capacity was twice that amount. Then their product was selling as high as \$4.05 the unit, while at 85 cents or thereabouts in these days, for that is about the average German price for the muriate, our makers find themselves up a blind alley. They believe that this dumping policy of Germany, as they call it, will continue, and after the American potash industry is actually dead, up will go the prices of the Teuton manufacturers to all that the traffic will bear. At the present time, such rates as \$39 a ton for the German sulfate and \$47 for the muriate seem to be enough to lull the consumers into a sense of security.

"The German potash law" to quote from the remarks of H. A. Huston, the manager of the Soil and Crop Service of the German Syndicate in this country, "prohibits under heavy automatic penalties the export of potash at less than the selling price in Germany.

This measure was passed as a conservation law, but so far as countries outside of Germany are concerned, it acts as the most effective anti-dumping law ever enacted."

Whatever the selling price of anything in Germany may be under the present rates of exchange is more or less of a puzzle. In every situation which may arise the competition of Germany in the potash trade is formidable, and not to be met by anything but very decisive methods.

Germany's Advantage

One of the great advantages which Germany has, is that she can produce potash of standard quality, because of her supply of carnelite, or the double chloride of potash and magnesium. There are several important layers of it which have been thrown up by volcanic action within easy reach of mining operations. Here are millions and millions of tons of what is practically a soluble ore. The potash chloride or muriate is separated and offered for fertilizer, and the magnesia chloride finds a ready market elsewhere, for the Germans are past masters in the sale of by-products of all kinds.

The American sources of potash are many and various, but the sum of them is not great. Moreover, they are so widely scattered and the potash is produced under such different conditions, that it is impossible to establish any uniform cost of production. Most of it is obtained from brine from which the potash salts are separated. The German on the other hand, makes brine of his salts, and then takes from it the chemicals which he requires. The cost of coal and oil necessary to make the heat to evaporate the natural brines varies largely throughout the United States. Where there is brine, there is often no convenient supply of fuel.

One of the factors which would make the American potash industry in a better position to compete with Germany, provided that the conservation law which Germany has adopted for preventing dumping does work, is the adoption of a cheaper method of evaporation. Recent investigations conducted at the Massachusetts Institute of Technology show that there is a prodigious waste of fuel in many manufacturing processes. Heat for the purposes of evaporation and distillation can be handled with far greater economy and efficiency than has hitherto been done.

That is a significant paragraph which is found in the testimony of Wilbur La Roe, Jr., attorney for the United States Potash Producers Association, who appeared before the Committee on Ways and Means.

Improving the American Product

"It has been demonstrated," he said referring to exposing the brine to the sun, "that solar evaporation is entirely practicable in many instances, and that it substantially reduces cost. The lake brine is spread out on the desert, as it were, and the sun's rays perform a large part of the evaporation.

"Again," he continues, "purer salts, with a higher percentage of K₂O (potassium oxide) can be produced by improving the separation processes. It is reason-

an

th

ed

an

hi

m

C11

Po

ex

0

of

cu

ga

sa

du

W

m

ha

th

th

cr

m

ed

to

As

cia

ga

can

Sa

As

tio

Gr

of

off

or

ag

no

Ju

ably certain that the Nebraska salts can be improved so that they will contain over forty per cent pure potash, instead of about 25 per cent. It has been discovered that the Nebraska salts contain about roughly, 50 per cent soda ash. Heretofore, no successful attempt has been made by the Nebraska producers to separate out the soda ash, but on the contrary it has been shipped with the potash merely as a filler. It has now been demonstrated that by a moderate additional investment the soda ash can be separated out and sucessfully marketed. There is a large and growing demand for soda ash throughout the country, for the salt is used in the manufacture of soaps, scouring materials, glass, and for various other purposes. At a conservative estimate this soda ash which hitherto has been given away, practically, can be sold f. o. b. the potash mills at a price of \$20 or \$25 the ton. If this can be accomplished, as it seems certain that it can, the saving will amount to at least 16 cents a unit."

Cost of American Potash Unit

What is the actual cost of the American potash unit? The producers declare that averaging the expenses of lour typical California and Nebraska plants, which are in states where the sources of the element are quite rich, that the cost for each unit was \$2.04. This figure is now out of date owing to decreased prices of supplies, lower wages, and also to savings which were being made in operation before it was decided to operate no more. Several plants which operated early last year figured out a production cost of about \$1.50 a unit, and one at Searles Lake, California, reported a production cost of only \$1.43, which was then supposed to be reduced considerably. The prices of potash have been steadily going down hill, however, and as foreigners are asking less than a dollar for it, it is indeed, difficult to place the profits for the American industry under the present conditions. It is said, although such information is largely confidential and very hard to get, that some of the Utah plants controlled by packers and match companies for their own use, and for marketing, have reached as low a production cost as 85 cents a unit.

The cost of potash production in the United States vibrates considerably, because of different standards of bookkeeping. There is potash available from some industries as a by-product, such as the salt which may be obtained from the residue from the distilling of industrial alcohol from blackjack molasses, which may contain as much as 30 per cent of potassium oxide. What does that cost? Distillers of the industrial spirit do not consider that the present prices for potash justify them in using the fuel and the labor necessary to extract the salt. There is plenty of potash in the greensands of the Atlantic coast and from the residue obtained after digesting it with heat, excellent and very white bricks can be made. There again, the potash makers do not see how they can make anything at the existing prices.

Freight Rates Here Prohibitive

The high freight rates are, of course, a deterrent factor. It is indeed a strange state of affairs, when German potash, which often has to be handled eight times in transit, if sent to the centre of the United States, can be laid down here for less than the American manufacturer say they can sell with profit. Probably, if there were greater natural potash deposits in this country, the chemical could be sold near where it is produced. California, for instance, ought to be able to absorb much of the potash produced there, for it ranks with the Southern cotton belt as a heavy user of chemical fertilizers.

Have all the sources of American potash been developed? This may be considered more or less of an academic question, in view of the fact that potash manufacturers cannot sell what they can make from the present sources. None the less, it may be that there are enormous stores of the useful mineral within our reach which are still undiscovered.

It will be remembered that the German deposits lie on the top of great rock salt beds, for as the chlorides of potash and magnesia are the most soluble constituents of sea water, they crystallize out the last. These layers were covered up with mud which prevented their being dissolved again in water, and then other layers were added. Wherever the chlorides can be so found, there is likely to be plenty of rich potash salts. For a long time Germany got salt from the present potash workings and discarded the bitter salt or potash as unfit for any use.

The Texas Deposits

The very important borings which have been made among the red salts in the panhandle of Texas are very significant, although there is nothing about them at present to justify any scramble for investment. They were driven under the joint auspices of the United States Geological Survey and the State, and with the co-operation of the companies prospecting for oil. The cores from the drills were studied whenever possible, and some of the red salts brought up from 2,400 feet below the surface showed nine per cent of potash when analyzed. The layer, however seemed thin. There is plenty of ordinary salt in Texas, that is the sodium chloride of the laboratory, and where that exists, there should be potash. It is indeed strange that potash has not been found in greater quantities in the United States, a large part of it, as evidenced by geology, was once under water. If the Government continues a policy of studying the deep borings made by the various industries, it is not unlikely that considerable more potash may be discovered.

Some of the proponents of American potash insist that there is enough available now to fill all the demands of American agriculture and manufacture, if the producers had adequate protection. It is within the range of possibility, that rich veins may be found in this country or much nearer to our shores than Germany. The Nebraska supply, distributed as it is through hundreds of small lakes, which makes them unfit for the use of thirsty cattle, is largely a surface one, as according to W. B. Hicks, who examined it for the United States Geological Survey, the potash there present has been leached out by the waters from the ashes of many forest fires, although some of it may have been soaked out of rocks beneath the surface. The presence of so much soda ash in it rather bears out the Hicks idea. The percentage of solids in the water is about one per cent., so the evaporation of the fluids obtained from the lake requires considerable

These are the general facts about the potash industry, as it is trying to exist in the United States today. Like the dye industry it is certainly having a hard time getting the Government to take more than a passing interest in its welfare. Those who oppose it, maintain that it already has had an opportunity to make good, and that it might as well sell out. To whom can it sell? Certainly it is not a very good buy in its present state. If it were able to have some protection, say a sliding tariff which would in five years restore potash to the free list, where the chemical was before, the industry would have a chance to compete, especially if a vigorous search be kept up for richer and more extensive deposits.

CHANGES IN DU PONT DYE SECTION

(Special to DRUG & CHEMICAL MARKETS)

Wilmington, Del., Feb. 1—E. I. du Pont de Nemours & Co. announce changes in the dyestuffs department, affecting Morris R. Poucher, F. W. Pickard, C. A. Meade, and Cesare Protto. The announcement reads:

"Development of American dyes has become such an important part of the du Pont company's activities that the dyestuffs department has been so strengthened that its personnel can better handle the technical and commercial problems which the new industry presents.

"F. W. Pickard, vice president, has been relieved of his duties as a member of the executive committee to become general manager of the department with W.

F. Harrington as assistant.

"C. A. Meade, vice president and former general manager, who has been connected with the dyestuffs department since its organization, and also M. R. Poucher, former director of sales, have been made executive staff officials. Both are directors of the du Pont Co.

"Mr. Pickard has been connected with the du Pont explosives and chemical industries for 20 years. On Oct. 30, 1918, he was elected vice president and director of the company and was made a member of the executive committee. Up to the time of the recent reorganization of the company, he represented the general

sales activities on the executive committe.

"Mr. Poucher has been associated with the dye industry for many years and is one of the best known and most prominent men in the trade in America. When the du Pont Co. decided, in 1915, to go into the manufacture of dyes, he joined the organization and has been most actively engaged in the development of the industry in this country. He has been holding the title of director of sales, but because of the increasing need for his services in solving the development problems constantly arising, he has been relieved of the routine duties of that office and Cesare Protto, his assistant, has been made director."

WILL FIGHT COMMERCIAL BRIBERY

The Commercial Standards Council, New York, formed to eliminate "the corrupt and growing practice of commercial bribery," has begun active work. The National Association of Purchasing Agents, the American Association of Pyroxylin Manufacturers, the Synthetic Organic Chemical Manufacturers' Association, the American Ship Service Corporation, the American Society of Sales Executives, the New York Sales Managers' Club, the National Association of Credit Men, the National Association of Printing Ink Manufacturers, the Association of National Advertisers, the National Wholesale Grocers' Association, the Associated Advertising Clubs of the World, the National Association of Office Appliance Manufacturers, and others, are represented exofficio in the ranks of the council by their secretaries or other officials.

The new body proposes to foster protective legislation against all forms of commercial venality and to directly support a measure known as House Resolution 5632, now before the House of Representatives, and entitled, "A Bill to Further Protect Interstate and Foreign Commerce Against Bribery and Other Corrupt Practices." This bill is now before the House Committee of the

Judiciary.

Henry Woods Sons Co., Boston, manufacturers of dry colors, has been taken over by a Boston Syndicate.

NATIONAL CHAMBER'S REFERENDUM FAVORS TARIFF BOARD TO FIX RATES

No Decision Reached on Valuation Question, or Proposition Regarding Postponement of Tariff Revision Until International Trade and Finance Are More Stable—Meeting of National Council on February 8 and 9

(Special to Drug & CHEMICAL MARKETS)

Washington, D. C., Feb. I.—At the meeing of the National Conference of Business Paper Editors with officers and managers of the departments of the National Chamber of Commerce held at Washington on Monday, Jan. 23, the resident vice president reported that the vote on Referendum No. 37 on the Report of the Committee on Tariff Principles closed at midnight on Saturday January 21, and a preliminary canvass of the vote was placed before the Editors. In accordance with this vote the Chamber of Commerce of the United States is committed to propositions 1 to 6, inclusive. With respect to propositions 7 and 8, the Chamber does not have any attitude as a result of the vote, for the reason that there was not in the vote cast two-thirds in favor of or opposed to propositions 7 and 8 as submitted.

The referendum resulted as follows:

1—The committee recommends legislation permitting in the event of changes of economic factors adjustment of tariff rates by administrative authorities within limits prescribed by Congress for the purpose of maintaining a consistent tariff policy. The vote was 1588 in favor; 304 opposed.

2-The Committee recommends creation of a Tariff Adjustment Board to administer adjustable rates, The

vote was 13791/2 in favor; 4811/2 opposed.

3—The Committee recommends that there should be reasonable protection for American industries subject to destructive competition from abroad and of benefit to any considerable section of the country. The vote was 1840½ in favor; 27½ opposed.

4—The Committee recommends that the anti-dumping legislation of May, 1921, should be maintained in principle. The vote was 1846½ in favor; 37½ opposed.

5—The Committee recommends that the principle of maintenance and encouragement of our export trade should be observed in tariff legislation so far as consistent with reasonable protection for American industries of benefit to any considerable section of the country and subject to destructive competition from abroad. The vote was 1793½ in favor; 59½ opposed.

6—The Committee recommends that tariff legislation should be framed and administered with a view to meeting discriminations, direct or indirect by other countries against American trade. The vote was 1868 in

favor; 26 opposed.

7—The Committee recommends that the present system of valuation for levy of ad valorem duties should be maintained. (Votes in opposition to this recommendation will be interpreted as in favor of "American valuation.") The vote was 929 in favor, 833 opposed.

8—Do you favor postponement of general tariff revision until conditions in international trade and finance are sufficiently stabilized to form a basis for legislation possessing permanent value? The vote was 734 in

favor; 1110 opposed.

L. Neuberg has been appointed resident manager of the Carteret, N. J., plant of the Warner Chemical Co. Mr. Neuberg has been with the company for eight years, and for the greater part of the time was assistant manager of the plant of which he now assumes charge.

TO VOTE ON METRIC SYSTEM REFERENDUM

(Special to DRUG & CHEMICAL MARKETS)

Washington, D. C., Feb. 1.—The Committee on the Metric System, appointed by the Board of Directors of the Chamber of Commerce of the United States has reported its recommendations, which will be submitted at the meeting of the National Council Feb. 8 and 9. The report is in effect that legislation be favored which would provide for the abandonment of the present system of weights and measures, and for the adoption of the metric system as the sole standard of weights and measures in the United States, except where exemption from such use may be granted by designated authority; provided, however, that there be an optional period of ten years for education and preparation.

The Board of Directors awaits the decision of the Council whether or not a referendum should be conducted as proposed by the committee.

HOOVER TO REPORT ON PRICE FIXTURE

(Special to DRUG & CHEMICAL MARKETS)

Washington, D. C., Feb. 1.—Attorney General Daugherty is proceeding in an extremely cautious manner in drafting a statement delimiting the functions of trade associations with respect to the compilation and distribution of reports on production, stocks and prices, under the recent decision of the Supreme Court in the hardwood lumber case.

The Attorney General is of the opinion that if such a statement is issued by the Department of Justice it will be used against the Government in the courts. His negotiations with Secretary of Commerce Hoover had advanced almost to the point of understanding, when a rift appeared in the basis of agreement. It is indicated now that the statement, when issued, will come from Secretary of Commerce Hoover.

RECOVERING POTASH FROM WOOL

(Special to DRUG & CHEMICAL MARKETS)

Washington, D. C., Feb. 1.—A small wool washer made for recovering potash from fleeces in a solution of sufficient concentration to make the recovery of potash profitable has been designed and is being tried out by the Bureau of Chemistry of the Department of Agriculture. It is said that the average fleece contains about 4 per cent of potash by weight, but in the ordinary method of washing wool it comes out in such dilute solution that it does not pay to recover the salt.

About 600,000,000 pounds of wool are scoured in the United States each year, and if only 3 per cent of potash is recovered it would amount to 18,000,000 pounds of actual potash that would be available for use in fertilizers. Some nitrogen is also recovered from wool along with the potash,

Colloidal antimony has been used in Durban with some degree of success in the treatment of leprosy, according to the British Medical Journal.

Borax finds use as an addition to the dyebath, in many cases, to increase the solubility of the dye and to promote more even dyeing, entirely without injury to the fabrics. It is employed to good advantage in the preliminary boil-off in dyeing faded garments to ensure more nearly even dyeings. It is preferable in every way to sodium carbonate, generally used for this purpose, in that a harshness or tendering of the fabric, which may result from the use of the stronger alkali, is entirely avoided.

Of Interest in the Trade

The Cyaco Chemical Co., New York, has moved to offices at 126 Maiden Lane.

J. Stebel, formerly of the Gross Co. is now with Weisenthal & Co., importers and exporters of chemicals, 145 W. 45th st., New York.

The one-story steel and concrete plant of the Corrin Chemical Co., East Paterson, N. J., was damaged by fire, on Jan. 27. A house owned by Ferdinand Corrin, adjoining the plant, was destroyed.

Harshaw, Fuller & Goodwin, one of the oldest and best known firms in the Cleveland chemical trade, on Feb. 1 moved their offices from the Electric Bldg. to the new Hanna Bldg.

Para-dichlorobenzene is recommended for use in preventing the ravages of the peach-borer, one of the worst pests of the peach tree, according to Farmer's Bulletin 1246 of the Department of Agriculture.

B. M. Spencer, who has been connected with some of the largest chemical and allied industries for the last twenty years has, joined the organization of Litter & Allen, Inc., manufacturers agents and importers and exporters.

The Kelley Island Lime & Transport Col, Leader Building, Cleveland, O., has plans in progress for increasing production of limestone at its local plant. The company recently acquired the plant of the Dolemite Products Co., Narlo, O., and with this additional output it is proposed to produce about 2,500 tons per day.

An acid chamber unit of the Robertson Chemical Corp., near Norfolk, Va., was damaged by fire on Jan. 26. The loss on the plant is estimated at 40 per cent. The insurance on building and machinery is \$300,000; on stock, loss about 5 per cent, \$315,000. A further insurance of \$100,000 is carried on "use and occupancy."

U. S. OUTPUT OF EPSOM SALTS

(Special to DRUG AND CHEMICAL MARKETS)

Washington, D. C., Feb. 1.—About the middle of the last century most of the Epsom salts used in the United States was made in Baltimore from magnesite mined in Pennsylvania. The use of Epsom salts has continued, but the mining of magnesite on a commercial scale in Pennsylvania ceased prior to 1860. The demand for magnesite on the Atlantic seaboard resulted last summer in an investigation of the possibility of working the Pennsylvania deposits profitably, and in order that the United States Geological Survey might be informed concerning the recent developments, the deposits were examined by R. W. Stone.

la A

in

tr

The deposits examined are near the oxbow of Octoraro Creek, on the Pennsylvania-Maryland State line. The development work completed last fall shows that the quantity of magnesite available close to the surface is very small and that many tons of waste would have to be handled to produce a single ton of ore, and production on a commercial scale was therefore not attempted. The magnesite is of the white amorphous kind, like that produced in California and Greece. It has the typical curved porcelaneous fracture and is apparently of high grade.

WOULD INVESTIGATE FERTILIZER "TRUST"

(Special to DRUG & CHEMICAL MARKETS)

Washington, D. C., Feb. 1.—Senator Harris of Georgia last week introduced a resolution in the Upper House to investigate the fertilizer trust. The resolution reads:

"Whereas it has been publicly charged that various persons, associations, corporations, and combinations interested in the production of fertilizers, commonly known as the fertilizer trust, and various persons, associations, corporations, and combinations interested in the production and transmission of power, commonly known as the water power trust, have been and are engaged in extensive propaganda and in the maintenance of a lobby to defeat any plans for and to prevent the lease or other disposition by the government of the Muscle Shoals plant and project: Therefore, be it

"Resolved, That a committee composed of five Senators, to be appointed by the President of the Senate, is hereby authorized and directed to investigate such charges and the activities of any such persons, associations, corporations, or combinations and to report its findings to the Senate with such recommendations as it deems proper. Such committee is authorized to hold hearings and to sit during the recesses or sessions of the sixty-seventh Congress, at such times and places as it may deem advisable, to send for persons, and papers, to administer oaths, and to employ a stenographer to report such hearings and findings at a cost not exceeding \$1.25 per printed page, the expense of such investigation to be paid from the contingent fund of the Senate."

Some days ago Senator Harris called the attention of the Senate to the propaganda which he said is being sent throughout the country.

REPORT ON VALUATION PLAN

(Special to DRUG & CHEMICAL MARKETS)

Washington, D. C., Feb. 1—The completed report on American valuation which was made under the direction of James B. Reynolds, former assistant secretary of the Treasury in charge of customs, under a special appropriation of \$100,000, is now before the Senate Finance Committee. While this report was compiled for the exclusive use of Republican members of the Finance Committee, and while there is no written text, it is understood that a great many hundreds of sheets are included in the report, showing the foreign and domestic selling prices of like or comparable articles produced in foreign countries and in the United States. The foreign articles examined by the special experts were drawn from the appraisers' stores in New York and from the mills of American producers.

It is understood that the schedules present not only the existing rates of duty as they stand in the Underwood law, but the Fordney rates and the rates in the Payne-Aldrich law, thereby enabling the Committee to make easy comparisons.

The Smoot amendments to provide a flexible tariff await the action of the Committee. The country has asked for a protective tariff and Congress is determined that it shall have one.

Jean DuBois, business manager of the Roessler & Hasslacher Chemical Co., Perth Amboy, N. J., died in that city, Jan. 12, following a lingering illness of nearly a year. He was born at Le Locle, Switzerland, on Nov. 24, 1869, and spent his early years in that country. He came to New York in 1911 and entered the employ of the Roessler & Hasslacher company.

AMERICAN MANUFACTURERS OF CYANIDE ASK 33 1-3 PER CENT AD VALOREM DUTY

Roessler & Hasslacher Chemical Co. Says Its Patents Have Expired and the Charges of a Monopoly Are Without Foundation—Advantage Held By American Cyanamid Co, With Plant in Canada

Washington, D. C., Feb. 1—The Roessler & Hasslacher Chemical Co., New York, has filed a brief with the Senate Finance Committee, requesting a tariff on potassium cyanide and sodium cyanide, now on the free list. The company wants a re-classification with duty on all cyanide salts, compounds, combinations and mixtures containing cyanide of 33½ per cent ad valorem. The request was denied by the Ways and Means Committee. The Underwood tariff act carried a duty of 1½c per pound.

The company says in part: "The charge repeatedly made that The Roessler & Hasslacher Chemical Co. has a monopoly on the manufacture of cyanide in the United States is entirely without foundation. The patents covering the process used by it in the manufacture of sodium cyanide have long since expired. There are no patents in force covering the process under which The Roessler & Hasslacher Chemical Co. and its substidiary, The Niagara Electro Chemical, manufacture cyanide.

"The American Cyanamid Co. in its brief filed with your Committee dwells at length on the various uses of cyanide, but fails to mention that the great majority of these uses, particularly in electro plating and heat treating of steel, were developed by experts in the employ of this company. Men associated with and in the employ of this company are responsible for the development of the use of hydrocyanic acid gas, developed from cyanide, in the fumigation of citrus trees in California and elsewhere in the United States.

The statements made by the American Cyanamid Co. as to the large amount of money saved by the various users of cyanide in the United States through the efforts of that company are without foundation in fact, and cannot be substantiated.

"The American Cyanamid Co. in its brief admits that its process is protected by subsequent and subsidiary United States patents and alleges that said process is much more modern. If it was sincere in its desire to protect the interests of the American consumer of cyanide by active competition, it could readily have established its plant for the manufacture of cyanide in the United States. It already has a plant at Werner, N. J., where it converts Canadian made cyanamid into a fertilizer known as "Ammo-Phos." The American Cyanamid Co., however, has evidenced no desire to compete with The Roessler & Hasslacher Chemical Co. on an equal basis in the United States.

"The American Cyanamid Co. established its plant in Canada in order to obtain the advantage afforded by cheap Canadian water power."

Of 104,000 disabled veterans of the World War who are in training under the rehabilitation division of the United States Veterans' Bureau, 440 are studying to become pharmacists. Twenty-four are now in actual employment, and are receiving an average salary of \$1,600, whereas their average pre-war salaries were \$900.

The Federal Trade Commission will hear a final argument on Feb. 6, in the case of the Winthrop Chemical Co., involving the use of the word "veronal," a German patent.

th

ir

DR. CHARLES BASKERVILLE DEAD

Dr. Charles Baskerville, director of the chemical laboratories of the Coilege of the City of New York, died of pneumonia on Saturday at his home, 610 West 110th street in his fifty-second year. Dr. Baskerville was the author of a number of text books on chemistry and contributed many scientific articles. His researches embraced work on rare elements, on anesthetics and on many phases of industrial chemistry.

Dr. Baskerville was born in Mississippi, June 18, 1870. He studied at the University of Mississippi in 1886 and 1887 and was graduated from the University of Virginia in 1890. He attended Vanderbilt University in 1891, the University of Berlin in 1893 and received the degree Ph. D. from the University of North Carolina in 1894. From 1891 to 1904 he was connected with the chemistry staff of the University of North Carolina as instructor, assistant professor and professor of chemistry and director of the chemical laboratory.

In 1904 Dr. Baskerville was called to the Chair of Chemistry at the College of the City of New York. He designed the large laboratory of that institution and served as professor of chemistry and director of the laboratory up to the time of his death. He was a member and Councillor of the American Chemical Society, a Fellow of the American Association for the Advancement of Science, a Fellow of the Chemical Society, London, a member of the Society of Chemical Industry, the American Electrochemical Society, the New York Academy of Sciences, the Franklin Institute, Phi Beta Kappa Society and the Delta Kappa Epsilon Fraternity. His clubs were the Century, Engineers, Chemists' Graduate, City College, Southern and Authors'.

The funeral services were held on Tuesday, at the Chapel of the Intercession, 155th street and Broadway. The honorary pallbearers were Thomas C. Churchill, president of the Board of Trustees of the College of the City of New York; Sidney E. Mezes, president of the college; Herbert R. Moody of the department of chemistry; Edgar F. Smith, president of the American Chemical Society; Elwood Hendrick, past president of the Chemists' Club; Alfred W. Kiddle, president of the Engineer's Club; L. H. Baekeland, past president of the American Electrochemical Society; Charles H. Herty, representing the University of North Carolina; George F. Kunz of the Century Association, George Austin of the D. K. E. Fraternity, Dr. John H. Finley, L. C. Holden, Charles L. Wales and Walter W. White.

In reply to a query regarding the high price of quinine, the Minister of Labor of Holland recently issued a statement which was published in the "Chemist and Druggist" of London as follows: "There is only one quinine factory in Holland, viz., the Amsterdam Quinine Factory. This factory supplies quinine to the Dutch market at a considerably lower price (according to its purity, at 65fl. or 76.25fl. per kilo.) than it does to the world market (84.85fl. and 98.70fl. respectively). Further, this factory supplies the quinine, sold in Holland at 76.25fl., in the form of sugar-coated tablets, for combating malaria, at 57.50fl. per kilo. The price of quinine in this country, including that for treating malaria, is certainly very high. The small demand for quinine at a reduced price for this purpose, and the small individual expense attached to the use of quinine by malarial patients afford no grounds for assuming that the high price of quinine stands in the way of combating this disease. Nevertheless, the Minister is ready to approach the Amsterdam Quinine Factory with a view to effecting a further reduction in the price."

Business Brevities

R. O. Walker, of New York, was elected president of the Paint Trade Mutual Insurance Co., at a meeting in Philadelphia, on Jan. 23.

The Chadeloid Chemical Co. has begun suit in the U. S. District Court, New York, against the Charles McAdam Co., alleging infringement of a patent for a varnish remover.

Marden, Orth & Hastings Co,'s receivers have given notice of a petition to be presented to the Federal District Court in Brooklyn, on Feb. 8, asking for an allowance for their services, and permission to pay a dividend to creditors.

Bayard Colgate, son of S. M. Colgate, perfume manufacturer, will leave New York on Feb. 7 for China, to join the expedition neaded by Roy Chapman Andrews 1 the American Museum of Natural History through China. Mr. Andrews is now in Peking.

The U. S. Tariff Commission summarizes in its annual report the previously published surveys of the chemical field, which were prepared for the use of the Ways and Means Committee. These are now being used by the Sanate Finance Committee in framing the new tariff bill

The Philadelphia Drug Exchange has elected the following officers and directors for the year: Charles E. Hires, president; Milton Campbell, vice-president; Joseph W. England, secretary, and A. L. Hilles, Jr., treasurer. Directors:—Herbert R. McIlvaine, Dr. Adolph W. Miller, Adam Pfromm, C. Stanley French, Clayton F. Shoemaker, Walter V. Smith, C. Mahlon Kline, and Norman K. Conderman.

DRUG TRAFFIC ON CANADIAN BORDER

(Special to DRUG & CHEMICAL MARKETS)

Toronto, Canada, Feb. 1.—Officials of the Dominion Department of Health are keeping closely in touch with the developments of the drug ring situation on both sides of the international 'boundary. All clues which may lead to the discovery of the ringleaders are being closely followed. Trade figures for the eight months ending Nov. 30 show that there has been a considerable reduction in the amount of drugs imported legitimately into Canada during the last three years, importations in these periods being as follows:—

1919 1920 1921 OZ. OZ. OZ. 4,836 2.820 2,416 Cocaine Morphine 22,239 8,815 5,286 lbs. lbs. lbs. 11,922 Crude opium 2.293 1.440

In the United States it has been estimated that 75 per cent of the total volume of habit-forming drugs imported enter the country through illicit channels. Canadian officials think that the figures for illicit importation into Canada would be about 50 per cent of the total. They look for a diminution of this illicit traffic owing to the carrying out of the international opium agreement included in the Versailies Peace Treaty. Meanwhile the Canadian authorities are taking active measures to suppress the illicit traffic in drugs. During the nine months ending Dec. 31, prosecutions undertaken in all parts of the Dominion resulted in 580 convictions and the total amount of fines imposed upon offenders was \$91,557. Airplanes are being used on the Pacific Coast to meet vessels coming from the Orient and prevent the landing of drugs brought over to be smuggled.

CARRIERS HANDLED OVER 20 MILLION PIECES IN PERFECT PACKAGE TEST

Shippers Made a Score of 99.10 Per Cent, According to Tabulation By Railroad and Express Accountants —Training Course in Crating and Boxing—Rules for Marking and Billing

Shippers of the country made a score of 99.10 per cent in the "Perfect Package Campaign," according to a recapitulation of the results of the movement just announced by the Joint Campaign Committee of the American Railway Association and the American Railway Express Company, which conducted the campaign throughout the country in November. Reports of the business handled and the number of exceptions taken on packages, because of some error or defect in packing, marking or registration, were tabulated in Chicago by a corps of accountants, and took a week to complete.

During the Perfect Package Month, as November was designated, the railroads were credited with handling 9,339, 745 freight shipments, to which 101,760 exceptions were filed by the carriers. During the same period, the express company handled 10,899,352 shipments, to which 81,070 exceptions were taken. In other words, all of the carriers handled 20,239,097 shipments, freight and express, on which 182,830 exceptions were entered by carriers, giving a national percentage of 99.10 per cent.

Here are suggestions for shippers:

Marking

1. Show full name of consignee, destination and state. Do not abbreviate.

2. Show county, where there are two or more towns of the same name in state.

3. Show street address at all times.

4. Show initials of destination road if certain delivery is desired.

5. Show "From" or "Manufactured By" preceding shipper's name and address.

6. Erase or obliterate marks if second-hand package is used, avoiding use of such as far as possible.

Name and address of shipper and consignee on inside of package will insure delivery if outside marks are lost or destroyed.

8. Use marking pot and brush for marking packages having uneven surface.

Billing

1. Arrange your shipping instructions so the Shiping Order will be on top.

2. Write plainly. Use typewriter if possible.

3. Do not use worn or poor carbon paper. See that all copies are lined up properly.

 Be sure shipping instructions agree with marking on packages.

Describe freight fully, accurately and be sure to verify.

 Show actual gross weight on bills of lading and shipping orders.

Delivery to Carrier

 Deliver your freight to railroad station early in the day and have all express shipments ready as early in the day as possible.

2. Do not split your shipment but deliver complete to avoid delay.

Training Course in "Boxing"

The Forest Products Industrial Research Laboratory, maintained by the U. S. Department of Agriculture in co-operation with the University of Wisconsin at Madison, Wis., estimates \$500,000.00 as the daily loss to shippers and manufacturers due to poor packing and to expensive and improperly designed contain-

ers tor all classes of domestic and foreign shipments. The Laboratory has co-operated with manufacturers in improving the packing of widely varying types of commodities. In many instances these tests resulted in the redesign of the container. The new design gave increased strength and often decreased the amount of material used in its manufacture; added to the security against pilfering; decreased the cubic contents; reduced the labor and cost of manufacture; made possible more rapid production of packages, etc.

The work of the Laboratory includes practical instruction courses in boxing, crating and kiln drying given at the Laboratory. The object of this course is to demonstrate the principles that underlie proper box and crate construction and to supply information which will be of assistance in developing economical containers that will deliver the contents in a satisfactory condition at a minimum cost. All correspondence should be addressed to the Director, Forest Products Laboratory, Madison, Wis.

The list of Canadian failures during 1921 as compared with the two previous years published by Dun's Review shows failures of manufacturers of chemicals and drugs numbering nine, with liabilities of \$166,409, as compared with two failures with \$19,000 liabilities in 1920, and seven failures with \$68,491 liabilities in 1919. Failures of dealers in chemicals and drugs in 1920 numbered eighteen with \$143,417 liabilities, as compared with seven failures with \$32,800 liabilities in 1920, and four failures with liabilities of \$36,710 in 1919.

The production of bauxite in the United States for 1921 is estimated by the United States Geological Survey, at approximately 130,000 long tons as compared with 521,308 long tons in 1920, a decrease of 391,308 tons. This great decrease in the production of bauxite is largely the result of the curtailed demand for aluminum, particularly aluminum used in the automobile industry, though the curtailed consumption of chemicals containing alumina lessened the output of some of the mines, particularly in the Georgia-Alabama field.

The Board of United States General Appraisers handed down reappraisement decisions fixing the correct values for customs purposes on the following imported goods: Bromide of Potash, from R. W. Greeff & Co., Ltd., Hamburg, Germany; Sodium bromide, potassium bromide, from Felix Prenzlau & Co., Hamburg, Germany. Perfumery, from Javal & Bienaime, Paris, France; Perfumery, from Parfumerie Roger & Gallett, Paris, France.

Dr. H. H. Rusby, who is head of the Mulford Biological Exploration of the Amazon Basin, Philadelphia, is reported to be on his way home. The other members are to finish certain work, and will then return to the United States. Dr. Rusby's health prevented him from continuing along the lines he had planned it is said, but he is not seriously ill.

H. C. Phelan, for many years associated with the Marietta Refining Co., died at his home in the Borough of the Bronx, New York City, Saturday, Jan. 28, after a short illness. Mr. Phelan was associated with both the New York office and the factory of the company during recent years.

Manufacturers of fertilizers told the Interstate Commerce Commission, last week, that they cannot continue to produce fertilizers unless a substantial reduction in freight rates is granted. Charles H. MacDowell, president of the National Fertilizer Association, was the spokesman.

D

FERTILIZER MAKERS LOST \$75,000.000 IN 1921, SAYS CHARLES H. MacDOWELL

An Equal Amount, In Addition, Is Outstanding on Past Due Paper, Declares President of National Fertilizer Association - American Potash Production Would Further National Interest, He Says.

(Special to DRUG & CHEMICAL MARKETS)

Washington, D. C., Feb. 1-In an address before the National Agricultural Conference, on Jan. 23, Charles H. MacDowell, president of the National Fertilizer Association, said:

"Our industry makes and distributes its goods through some 600 plants located in the consuming sections. It also takes the by-product output of 220 plants principally engaged in making other commodities. It is a conservation industry in that it places on the farm, to increase crop production, valuable materials formerly wasted. It is the largest group in the heavy chemical industry. It has invested in plants, mines, materials, goods and accounts something like \$300,000,-000, not figuring by-product plant investments. The turnover is a slow one, ranging from once a year to once in a year and a half, depending on locality and the financial condition of the farmer. It sells its product on crop time when credit is called for and performs the dual task of manufacturer and banker.

"Before the war, the demand was increasing about 10% a year. About 7,500,000 tons were shipped in 1914. Cannon competition reduced the consumption during the fighting, as plants and cannon eat much the same food. In 1921, the agricultural upset reduced the demand and 4,500,000 tons were used. Manufacturers had contracted ahead for about their normal tonnage of materials. As goods began to move, it became evident consumption would be light. Price reductions were made but demand did not increase. Goods were sold regardless of price and the spring season wound up with losses unparalleled in the history of the industry. Notes representing the credit value of goods shipped during the spring of 1920 for cotton planting were not paid when due and most of them are still uncollected. Large inventory losses were taken on the mid-summer closings.

"It's no wild guess to estimate that the direct losses in 1921 were not far from \$75,000,000 and that fully that much more is outstanding as past due paper on the combined 1920-1921 cotton business alone.

"Nitrate of soda, a Chilean product, can be obtained as needed and at fair prices. This immediately available form of nitrogen has its special field in agriculture on certain soils and crops and for forcing early growth, in the chemical arts and in blasting powder manufacture. Its importation gives Chile her dollar to buy our field and town products. Our phosphate rock reserves are the largest known. We have an ample supply of sulfur for acid production, augmented by zinc and copper smelter by-product acid.

"France and Germany have almost inexhaustible deposits of potash salts which are being sold at pre-war prices. The American potash industry, developed during the war, is finding it difficult to compete with foreign sources as it is mostly produced in the West with rail freights to consuming centers ranging from \$13 to \$20 per ton, as against a \$3 ocean freight from Europe. The Coastal Plains section along the Atlantic Coast is the largest user of potash. It would further the national interest if a substantial American production of potash could be secured along sound economic lines. The problem is a difficult one.

"Prices of many fertilizer materials at producing

points are down to a pre-war basis. Some materials are selling below production costs. Many phosphate rock mines are not operating. Freight rates to manufacturing points are so much higher than before the war that materials in plants are costing more. The reduction in demand has doubled plant overhead charges per ton. Rigid economies have been put into effect. Plant, office and selling forces have been reduced. Salaries have been cut in many instances. Plant wages have been lowered and the industry is doing everything possible to reduce costs and selling prices.'

PRODUCTION OF POTASH IN POLAND

Extensive prospecting for potash is being conducted in Poland, according to a report compiled by the Eastern European Division of the Department of Commerce. Five new deposits have been discovered at Kaluss, within a comparatively small area, tested, and several new companies have been organized. Polish chemists assert that the Kaluss salts are equal to the Alsatian salts and also that these natural salts are superior to those chemically concentrated.

Polish potash salt fields are located near the cooking salt mines in the Carpathian region of Galician Poland, The fields already exploited are in the districts of Kaluss, Stebnik, and Morazyn. Polish engineers maintain that there is potash in many other parts of Poland. Kalusz has the most extensive and the richest deposits and its product contains kainite and sylvine with a secondary layer of carnaline. The Kalusz product contains a high percentage of pure potash.

Kalusz kainite is said to contain 10% oxide of potash, and Kalusz sylvine from 20 to 30% of potash. Stebnik potash salts, according to Polish chemists, contains 25% sulfate of potash, which is very valuable as regards chemical products and as artificial fertilizer, A ton of potash with an average percentage of oxide of potash, such as is produced in the Kalusz mines, costs to produce 18,000 (figure for November, 1921) Polish marks at the mines.

Patents

Copies of patents may be obtained as follows; United States, 10 cents each; send to United States Patent Office, Washlagton, D. C.: French, one franc: send to M. M. Belln et Cie, 56 Rue des Frances-Bourgeois. Paris, for patents of the years 1902-1907, and to L'Imprimerle Nationale, 88 Rue Vieille du Temple, Paris, for patents of later date. German, one mark; send to Patent Office, Berlin. British, eight pence; send to Patent Office, London. Postage must be sent for British patents. Stamps are not accepted in payment for U. S. patents. In ordering patents, the number, name of patentee and subject of invention must be stated.

Granted January 17, 1922

- 1,403,556-Iens Pauli Lihme, Lakewood, Ohio. Method of making flaky sodium silicate.
- 1,403,763-William Richard Gibson, Sittingbourne, England. Nonrefillable Bottle.
- 1,403,794—Theodore Lichtenhahn, Basel, Switzerland. A process for the manufacture of ethyl alcohol from acetaldehyde.
- 1,403,820—Thomas J. Sturtevant, Wellesley, Mass. Apparatus for manufacturing acid phosphate or superphosphate.
- 1,403,920-Charles J. Strosacker, Midland, Mich. Method of making acetic anhydride.
- 1,403,960-Gustaf Henrik Hultman, Stockholm, Sweden. A process for manufacturing chrome alum. 1,403,971-Fred G. Meyer, Detroit, Mich. Bottle-capping machine.
- 1,403,993—Charles F. Wallace, Westfield, N. J. A process of manufacturing hypochlorite solutions. 1,401,054-Earle B. Phelps and Albert F. Stevenson, Ridgewood, and John C. Baker, Ridgefield Park, N. J. Manufacture of butter fat.
- 1,404,055-Emil Portheim, Prague, Republic of Czechi-Slovakia. Purification of crude anthracene.
- 1,404,056—Emil Portheim, Prague, Republic of Czechi-Slovakia. A process for the purification of anthraquinone.

 1,404,083—Harry P. Bassett, Cynthiana, Ky. A process of producing alumina and potash.

9

e

e

OUOTATIONS ON CHEMICAL STOCKS

QUOINITIONS	014	CITEMICITE DICCIE	•
Bid	Asked	Bid	Asked
Air Reduction 49	491/2	H'k Electro 55	66
*Allied Chem. & D. 58	581/2	H'k Electre, pf 60	70
*Allied Ch. & D., pf.102	104	Int. Agricult 8	9
Am. Ag. Ch 33	34	Int. Agricult., pf 36	37
*Am. Ag. Ch., pf 57	58	*Int. Nickel 12	121/2
Am. Chicle 71/2	9	*Int. Nickel, pf 68	69
Am. Chicle, pf 35	40	*Int. Salt 43	60
*Am. Cot. Oil 191/2	20	K. Solvay	60
*Am. Cot. Oil, pf 42	44	*Mathieson Alk 231/2	24
Am. Cyan 15	20	Merck & Co., pf 64	68
*Am. Cyan., pf 35	45	Merrimac 77	79
*Am. Druggists S 51/2	6	Mulford Co 45	50
Am. Glue 40	45	Mutual Co150	**
Am. Glue, pf 65	70	*National Lead 87	88
*Am. Linseed 30	311/2	*National Lead, pf.107	108
*Am. Linseed, pf 56	58	N. J. Zinc132	134
*Am. Malt 12	13	Niag. A., pf 96	100
*Am. Zinc 13	131/2	Parke, Davis & Co. 88 Penn. Salt 65	90
*Amer. Zinc, pf 37	38	Penn. Salt 65	67
Atlas Powder114	119	People's Gas, Chi. 611/6	62
Atlas Powd., pf 75	77	Procter & Gamble676	695
British Am. Chem 1	* *	Procter & Gam., pf101	10135
By. Prod. Co 57	65	Rollin Ch 50	60
Carborundum135	1351/2	Rol. Ch., pf 80	98
Carborundum, pf1151/2	116	Royal Baking Po 97	102
Casein Co 30	45	Royal Bak. Po., pf. 89	92
Celluloid Co104	104%	Sherwin-Williams520	540
Celluloid Co., pf106	1051/2	Stand. Ch 90	100
Ches. Mfg180	190	Swan & Finch 35	40 10
Ches. Mfg., pf106	110	*Tenn. C. & Chem. 91/2	271/2
*Corn Products102	1021/2	Tex. Gulf. Sul 27	
*Corn Products, pf111 *Davison Chem 60	115 61	Union Carbide 45	46
Dow Chem 60		*Un. Drug 70	71
Dow Ch., pf	200 103	*Un. Drug 70 *Un. Drug, 1st pf 45	46
Du Pont 88	92	*Un. Dyewood 56	60
Du Pont, pf 711/2	721/2	*Un. Dyewood, pf 94	96
Du Pont Chem 9	91/2	Un. Gas, Imp 38	39
*Freeport, Tex. Sul. 13	131/2	Un. Gas, Imp., pf 50	51
*Freept. Tx. Sul. pf. 91	93	U. S. Gypsum	34
Grasselli	130	*U. S. Indus. Al 42	43
Grasselli, pf 90	95	*IT. S. Indus. Al., pf	85
Hercules, Powder 150	160	*VaCar. Ch 29	30
Hercules. Powd., pf. 95	98	*VaCar. Ch., pf 67	68
Heyden Chem 1	11/2	*V. Vivaudou 6	61/2
		ork Stock Exchange	0/2
Disted on	74CM I	OIR STOCK Exchange	

Davison Chemical Co.'s stock advanced on Jan. 25 to 623/8, a new high record for the year. At its close of 597/8 the stock had scored a net gain of 51/8 points for the day. The financial district heard that plans are under way which call for the formation of a new company to take over the silica gel process, and that the new company will have a capitalization of 600,000 shares which are to be distributed on a share for share basis to present stockholders of the Davison Chemical Co.

The Ozonated Beverage Corp., manufacturer of flavoring extracts, 487 Broadway, filed schedules in bankruptcy Tuesday listing liabilities of \$62,460 and assets of \$21,500; Accounts, \$13,00; stock and fixtures, \$6,500. and cash, \$2,000. Principal creditors are: Estate of D. L. Herman, \$14,931; Isaac Hopper Sons Co., \$10,742; Columbia Bank, \$3,000, and Ansonia Copper and Iron Works, \$1,836, secured.

Freight cars idle as a result of business conditions totalled 593,298 on Jan. 15, a reduction of 53,375 cars, compared with the 646,673 reported idle for the previous week. The reduction was due, according to the Car Service Division of the American Railway Association, to increased demand for all classes of freight cars, resulting from traffic movement.

A petition in bankruptcy was filed on Jan. 25 against the Speare Chemical Products Co., Inc., of 30 Cliff st., by Ohio Chemical and Manufacturing Co., claiming \$943; Croton Chemical Co., \$326; Max Lowenthal, \$110.

J. B. Lewis has obtained a judgment for \$154.00 against The Ellis Jackson Co., and Ellis Jackson personally, of Providence and Philadelphia.

The Diamond Match Co. has declared the regular quarterly dividend of 2 per cent, payable March 15 to stock of record Feb. 28.

A petition in bankruptcy was filed on Monday against S. Wander & Sons Chemical Co., Inc., jobbers in chemicals, at 59 Crosby st., by T. Mathews & Co. on a claim for \$2,123; Isaac Elkins, \$110; William Zamore, \$70. Judge Mack appointed Robert P. Patterson re-ceiver, under \$15,000 bond. It is stated the liabilities are about \$200,000 and assets about \$75,000. The corporation has a plant in Albany.

A petition in bankruptcy was filed Jan. 25, against the Eagle Laboratories, Inc., drugs and chemicals, 455 West 42d st., by Royal Stationery Co., Inc., on a claim for \$300; Robert E. Leve, \$52; Ivel Process Co., \$250. Judge Mack appointed Abraham Kaplan receiver, under \$3,000 bond. Liabilities are about \$10,000 and assets about \$6,-

A petition in bankruptcy was filed Jan. 26, against L. Davies & Co., Inc., hospital supplies, at 2050 Amsterdam ave., by James Garofallon, claiming \$900; Louis Lewres, \$1,500; Louis Skopos, \$900. Judge Mack appointed Dorothy Kenyon receiver, under \$1,000 bond. Liabilities are about \$7,000 and assets about \$2,000.

The Board of United States General Appraisers, in an opinion sustaining a protest of the Rhodia Chemical Co., rules that so-called acetol, a fine white powder, is dutiable as a chemical compound at 15 per cent ad valorem under Paragraph 5, Tariff Act of 1913, rather than as a compound of cellulose ester at 25 per cent under Paragraph 25.

A protest by the Milwaukee Coke & Gas Co., Milwaukee, was upheld by a decision of the Board of United States General Appraisers which decided that certain imported naphthalene was free of duty and not taxable at 21/2 cents per pound.

The directors of the American Glue Co. have declared a quarterly dividened of \$2 a share on the common stock, payable March 15 to holders of record March 1. Previously the company had been paying \$4 a share semiannually.

The Romer Drug Co., Inc., has filed a judgment for \$150 against Theodore Tobani.

New Incorporations

Vitamin Research Laboratories, Dover, Del., capital \$260,000. Incorporated by the Corporation Trust Co. of America, Wilmington.

National Pictorial Soap Sales Co., Dover, Del., capital \$1,000,000. Incorporated by the Corporation Trust Co. of Delaware, Wil-

The Modern Chemical Co., Wilmington, Del., capital \$100,000. William B. Clark, Mark R. Yates, Washington, D. C. Representative, Charles G. Guyer, 826 Market st., Wilmington, Del. The Fir Chemical Products Co., Vancouver, Wash., capital \$300,000. To manufacture charcoal. J. O. Pierce, E. W. Crockett, O. C. Wilson, M. J. Connor, C. W. Steward, H. H. Wilson, M. M. Conner.

Carolina Naval Stores Corp., Dover, Del., capital \$200,000. To manufacture wood turpentine. H. D. Poole, Jackson Springs, N. C.; C. R. Peole, Hamlet, N. C.; J. E. Simmons, Charlotte, N. C. Incorporated by the Colonial Charter Co.
Colorado Fluorspar Corp., Dover, Del., capital \$100,000. Theodore L. Ernest, E. E. Freeland, Samuel Barnes, New York. Incorporated by the American Guaranty & Trust Co.

D. P. Ducas Co., Inc., New York, capital \$100,000. (and colors. Edward Dreyfus, 11 William st., New York. Chemicals

Canadian Incorporations

Brampton Paste and Gum Co., Ltd., Brampton, Ont., Canada, capital \$40,000. Edward R. Colbert, Robert W. Lowry, John May.

Drug Distributors, Ltd., Oshawa. Ont., Canada, manufacturing and wholesale druggist; capital \$90,000. John H. H. Jury, Edwin A. Lovell and Wm. H. Gregory.

Payko Products, Ltd., Toronto, Canada, capital \$40,000, wholesale nd manufacturing druggists. Frank Regan, John Callahan and and manufacturin

Canadian Fertilizer Co., Ltd., Chatham, Ont., Canada, capital \$200,000. To manufacture fertilizers and fertilizer chemicals. John G. Kerr, James A. McNevin, Wm. G. Kerr.

The Heavy Chemical Market

Current Spot Quotations of Heavy Chemicals, Pages 296-298

RED PRUSSIATE OF POTASH VERY SCARCE

Prices Sharply Advanced on Better Demand—Importers of Chemicals Unable to Cut Prices Owing to Upward Trend of Foreign Exchange—Buyers Take Advantage of Market Situation To Force Lower Prices

PRICE CHANGES IN NEW YORK (Stocks in First Hands) Advanced

Potash Prussiate, red, 5c fb.

Declined

Acid, Oxalic, 1/2c tb.

Acid, Sulfuric, 50c ton

Trend of the Marke	rend	rend	of	the	Marke
--------------------	------	------	----	-----	-------

	Today	Last Week	Last	Last Year
Acetic Acid. Glacial	\$.09	\$.09	\$.09	\$.101/2
Sulfuric Acid, 66 degton	16.00	16.50	16.50	20.00
Bleaching Powder Works 100 tbs.	2.25	2.25	2.25	3.00
Copper Sulfate100 lbs.		5.55	5.55	6.50
Potash, Caustictb.	.06	.06	.06	.14
Saltpetre, grantb.	.073/4	.073/4	.073/4	.1134
Soda Ash, 58 p.c100 fbs.	1.75	1.75	1.75	1.90
Caustic Soda, 76 p.c100 fbs.	3.60	3.60	3.70	3.80
Potassium Bichromate	.10	.10	.10	.15
Average	3.285	3.340	3.350	3.970

Factors in the heavy chemical market seem to have reached the conclusion that attempts to force the market at present are needless wastes of energy. The importers are prevented from cutting prices sharply at present by the upward trend of the foreign exchange markets and the manufacturers here are hardly in position to put further reductions into effect until their own costs can be forced down. Unquestionably the volume of business being done is on the increase again following the decided set-back of the first few weeks of the year, and there is some reason to believe that the pessimistic attitude of sellers is due rather to the discrepancy between the reality and the expectation than to any real difficulty with the present market. Buyers are holding firmly to their control of the situation and are working this control for every cent that can be squeezed from it through competitive bidding of sellers. In some cases it has been possible for buyers to take a decidedly unfair advantage of sellers owing to the anxiety of sellers to move goods even at slight losses to prevent idleness of plants. The prospect of an immediate change in the situation is rather remote but factors in the market generally point to continued gradual enlargement of the scope of operations so long as no unforeseen influences set in.

Prices continue generally unchanged in the same soft position as in previous weeks. Makers have reduced their quotations on sulfuric acid following competitive bidding for business. Oxalic acid is easier. Red prussiate of potash is sharply higher on absence of stocks in the spot market. Alkalis are weak both in the spot market and from makers. Price cutting on competition between sellers is still the rule in all lines of heavy chemicals in spite of the general lack of interest from buyers but there is some reason to believe that this factor is diminishing in importance.

Acid, Acetic—Prices are unchanged in makers' hands on light demand. The price basis for the lower strengths is \$2.50 per hundred for 28 per cent acid in carlots. Glacial prices are soft at 9c@10c per pound in barrels with the majority of business going at the lower figure whatever the quantity.

Acid, Mixed—Prices are holding on light demand at 8c@83/4c per unit of nitric and 1c per unit of sulfuric

Acid, Muriatic—Makers are competing sharply for every order or possible order that comes into the market and prices quoted have little meaning under the circumstances. Quotations of both the commercial and iron free grades are based on \$1.25@\$1.50 per hundred for 20° acid in carlots of carboys according to seller but there is no doubt that this basis can be shaded for business of any magnitude.

Acid, Oxalic—Prices are easier with makers naming 13½c@14½c per pound according to position. The reduction has resulted from competition with "Dutch" acid whose origin seems difficult to trace.

Acid, Sulfuric—Makers are openly naming lower prices following competition for business. The 60° strength is named at \$10.00@\$10.50 per ton and the 66°, at \$16.00@\$16.50 per ton in tank car lots f.o.b. nearby works. Oleum 20 per cent is quoted at \$19.50 @\$20.00 per ton on the same basis. The higher grades of oleum are very dull and prices are subject to decided shading.

Alum—Ammonia alum is unchanged in makers' hands on a basis of 3½c@3¾c per pound for lump against an importers' price of 3¾c for quantity. Potash alum is quoted firm by makers at 5c@5¼c per pound for lump f.o.b. nearby works although importers are able to offer freely at 3½c. Chrome potash alum is quoted at 6½c@7c per pound and chrome ammonia, at 7½c @8c per pound.

Aluminum Sulfate—Makers name 2½c@3c per pound for iron free on fair demand and commercial, at \$1.85 @\$2.40 per hundred.

Ammonium Chloride—Little attention is being attracted to sal ammoniac at present. Prices are steady with gray named at 6½c and 7½c and white, at 6¾c and 7½c by importers and makers respectively for quantity.

Arsenic—The spot market still shows decided signs of tightness although reports in the market here of conditions abroad are discredited by disinterested reports from foreign producing centers. Makers here are doing 7c per pound but the resale market is not quoted below 7½c and some holders are asking as high as 8c.

Bleaching Powder—No definite change has occurred in the bleach market and makers are still holding to their price of \$2.25 per hundred at works. Imported bleach is to be had on the spot at \$2.10 per hundred.

Chlorine—Liquid chlorine continues in increasing demand at price of 6c@6½c per pound from makers.

Lead Acetate—Makers are holding prices firm at 11c @11½c per pound for white crystals with other grades at corresponding prices.

Potassium Carbonate—The market is steadier here. Calcined 80-85 per cent carbonate is named at 4½c@ 5c per pound according to seller and hydrated at 5½c@6c per pound. Prices on the 96-98 per cent grade

are quoted over a wide range according to seller with 6c@10c named.

Potash, Caustic—Makers name 8c@10c per pound for 88-92 per cent caustic against an importer's price of 6c@6½c per pound. The discrepancy is greatly reduced in the face of possible business.

Potash Prussiate—Spot red prussiate of potash is very scarce and nominally prices have been sharply advanced on slightly better demand. Quotations are almost purely nominal at 38c@40c per pound although arrivals are quoted much below these figures. Yellow prussiate is firm at 25c@26c per pound.

Soda Ash—The spot market is neglected and unchanged at \$1.75 per hundred flat. Makers are holding their quoted figures at \$1.35 per hundred basis 48 per cent f.o.b. works for 58 per cent light ash in bags.

Soda, Caustic—Makers' prices are held at \$2.60@ \$2.65 per hundred basis 60 per cent f. o. b. works. Spot buyers are few and far between and prices from resellers have remained nominally unchanged at \$3.60 per hundred although reports of sales down to \$3.35 per hundred are occasionally heard, but lack confirmation.

Sodium Bichromate—Makers quote 7½c@7¾c per pound according to quantity.

Sodium Cyanide—Demand is very slow and makers are getting almost all the business in the market at present. Their prices are 26c@28c for 96-98 per cent and 23½c@25c for 73-76 per cent. Importers are quoting 23c on 120 per cent and 26c@27c on 128 per cent on light offers.

Soda Prussiate—Yellow prussiate is very firm on the spot at $17c@17\frac{1}{2}c$ per pound with few sales being made below $17\frac{1}{2}c$. Arrivals are reported as low as 16 7-8c but little credence is placed in these figures.

Metals

Aluminum—Prices are unchanged on a routine market at 17c@18c per pound.

Copper—The market slumped late in the week but recovered the loss over the week end. Prime lake is quoted at 13½c, electrolytic at 13 3-8c, and casting copper at 12 5-8c per pound. These prices named are the settling prices on the New York Metal Exchange.

Lead—Prices are sharply lower here with \$4.35@ \$4.40 per hundred named on prompt business.

Tin—Prices are firmer on tin. Straits tin on the spot is quoted at 31½c per pound about on a par with shipment prices. Standard tin is held at 31½c and 99 per cent, 30½c per pound.

Zinc—Prices are gradually easing off and present spot prices are named at \$4.85 per hundred.

BUY RAILROAD TO AID INDUSTRIES

Judge Stanford of the federal court, Chattanooga, has confirmed the sale of the Tennessee Central Railroad to C. M. Hovey, manager of the Nashville Industrial Corp., representing B. F. Morse, Charles N. Boettcher and W. R. Freeman of Denver, for \$1,500,000. The Nashville Industrial Corporation has taken over the government powder plant property at Jacksonville. Tenn., and the purchase of the railroad which serves the property is part of the program for development.

Canadian imports of fertilizers for November, 1921, nearly all from the United States, were valued at \$265,-341, against \$148,153 in November, 1920.

BRITISH HEAVY CHEMICALS DULL

(Special Correspondence to DRUG & CHEMICAL MARKETS)

London, Jan. 18—There are no signs of improvement in the heavy chemical market. Arsenic is unsettled owing to cheap offers of Continental stuff—British best white powdered remains at £40 per ton. Bleaching Powder, 35-37 per cent available chlorine, is steady but quiet on spot at £14 to £15 per ton. Home makers are quoting at £14 per ton, packages extra, for home consumption only.

Soda ash, 58 per cent light alkali, from makers for home consumption only, is unchanged at £8 7s 6d per ton. Spot parcels for export are at about £9 in the North and £10 London. Soda, caustic, on contract from makers for home consumption, is now at 70-72 per cent, £22 10s and 76-77 per cent at £24 10s. Spot supplies are fairly steady, but only in small demand at 70-72 per cent, £24 to £24 10s. 76-77 per cent, £26 10s per ton. American 76 per cent is quoted at competitive figures c.i.f. United Kingdom and Continent. Sodium nitrite is again a shade easier this week at about £33 per ton.

SICILIAN SULFUR PRICES DECLINE

(Special Correspondence to DRUG & CHEMICAL MARKETS)

Catania, Sicily, Jan. 18.—The prices of sulfur declined in December owing to reduced demand, and to the large stocks available. Quotations were as follows during the last week of December: Refined sulfur, lire 68 (Catania, Sicily), lire 75 (Genoa), lire 95 (Milan), lire 83 (Trieste), lire 96 (Bologna), lire 97 (Naples); sublimed sulfur, lire 85 (Catania, Sicily), lire 92 (Genoa), lire 130 (Milan), lire 100 (Trieste), lire 135 (Bologna), lire 114 (Naples).

During the month the sulfur miners obtained special advantages for 1921, which were allowed them with the liope that they will increase the output.

CHEMICAL FOUNDATION RUMOR DENIED

Recent reports of an official investigation of the Chemical Foundation by the Department of Justice are emphatically denied at the headquarters of the Foundation in New York. The investigation was reported in connection with legal proceedings and an investigation of the seizure of the Bosch Magneto Co., by the Alien Property Office during the war.

A bulletin to The National Fertilizer Association, dealing with the proposal to make cheap fertilizer at Muscle Shoals, declares that while the average wholesale price of sulfate of ammonia during 1921 was \$48. per ton, the cost to produce sulfate of ammonia at Muscle Shoals would be \$68. per ton, based upon the original estimate of the War Department. Sulfate of ammonia must necessarily be the principal product manufactured at Muscle Shoals, according to War Department experts.

The British Industries Fair, which will be held in London, Feb. 27 to March 10, will exhibit chemicals for the first time. The display is to be a most comprehensive one of the products of the British chemical industry in all branches. At previous London fairs only drugs and druggists' sundries were exhibited, but the coming exhibition will include all chemicals ranging from fine chemicals for research and medicinal purposes to heavy chemicals.

The Bureau of Supplies and Accounts, Navy Department, Washington, has cancelled the bids which were to have been opened on Jan. 24, for 17,000 lbs. of sulfuric acid. The acid was supplied from stock at the Norfolk Navy Yard.

The Fine Chemical Market

Current Spot Quotations of Fine Chemicals, Pages 292-294

SHARP REDUCTION IN CAFFEINE ALKALOID

Leading Maker Cuts a Dollar—Manufacturers Reduce Strychnine Sulfate and Salts Sharply—Cocoa Butter Higher Here and in Holland—Flurry in Quicksilver —Camphor Advanced

PRICE CHANGES IN NEW YORK (Stocks in First Hands) Advanced

Cocoa Butter, Bulk, 5e fb.

Declined

Alcohol, Denat., 3c gal. Aloin, 5c fb. Caffeine Alkaloid, \$1 fb Mercury, \$1 flask Rochelle Salt, Imp., le tb. Green Soap, U.S.P., le tb. Strychnine Alkaloid, 75c oz. Sulfate, 17c oz. Minor Salts, 50c oz.

Trend of the Market

	Today	Last Week	Last	Last Year
Acetanilid	\$.33	\$.33	\$.33	\$.40
Acid Citric, resellers	.43	.43	.43	.45
Caffeine, Alkaloid	3.75	4.00	4.25	6.00
Calomel, American	.82	.82	.82	1.00
Camphor, Jap., ref	.92	.92	.90	.80
Iodine, Resublimed	3.80	3.80	3.80	4.00
Menthol	5.25	5.25	5.25	4.40
Morphine Sulfate	4.80	4.80	4.80	5.80
Potassium Bromide, Cryst,	.19	.19	.19	.47
Quinine Sulfate, Import	.58	.58	.59	.65
Sodium Salicylate	.30	.30	.28	.33
Strychnine Sulfate	.88	1.05	1.15	1.55
Average	1.88	1.88	1.91	2.19

An occasional larger order was the only feature of the medicinal chemical business which might come under the head of expansion as the first month of 1922 came to a close. The month has seen little change in the basic situation, demand continuing restricted principally to routine needs of seasonable items. The market has not shown any material improvement during January except for very brief periods, the confidence of buyers being shaken undoubtedly by the weakness of some quotations which cheap imports and sharp competition between American producers have brought out. As long as lower prices continue to develop, consumers naturally are not interested in covering for future needs. Small lot business since Jan. 1, bulked quite large according to reports, but did not come up to expectations. With inventories completed and normal business resumed, a steadying of prices during February is practically certain to bring an improved demand from consumers.

A cut of a dollar per pound in caffeine early this week by one of the leading producers startled the market. A reduction in strychnine alkaloid, sulfate and minor salts by American manufacturers was announced. Another cut is noted in denatured alcohol. Both American refiners and importers advanced camphor. The position of quicksilver is a trifle firmer than that of a week ago, following a dip in price and sharp recovery. Imported cream tartar is soft. Active demand for cocoa butter and small spot stocks have brought out a sharp advance in price here. Cod liver oil continues quiet and uncertain at the lower prices. Quinine is in better demand. Glycerin continues very firm,

Acid Acetylsalicylic—Makers still at 75c@80c a pound. Resale lots offered sparingly at 70c spot.

Acid Citric—Continues dull and in routine demand for spot goods. A few large orders for shipment reported placed for consumption next spring. Prices here un-

changed at 43c@44c a pound for spot kegs of imported. American makers at 47c unchanged.

Acid Salicylic—Two producers at 24c for U.S.P. in 100 pound lots. Others quote 26c same basis unchanged. Resale goods at 22½c@24c. Demand quiet.

Acid Tartaric—Without change at the recent reduction by makers to 30c a pound for spot U.S.P. acid in barrels, crystals or powder. Imported at 25c here.

Alcohol—Producers have come out with a cut in denatured alcohol quotations owing to the reduced state of seasonal demand. Nos. 5 and 6 are not moving as they should at this time of the year. No. 6 at 35c and No. 6 at 36c, ranging up to 38c a gallon as to seller and containers is the basis here. Wood alcohol also a dead item at 60c a gallon basis for 95 per cent in barrels.

Aloin—The continued cheaper cost of Curacao aloes for some months past has brought out lower price on aloin, 80c a pound now being named here.

Bismuth—All preparations as well as the metal, firm at the recent advance by American manufacturers. Demand, however, is confined to small quantities, ten pound orders indicated as more frequent than twenty-five and fifty pound ones. Subnitrate \$2.00 in 25 pound lots.

Caffeine—A leading American producer of caffeine alkaloid rather startled the trade here with the announcement of a sharp cut in price early this week, from \$4.75 down to \$3.75 a pound. This latter figure marks the inside of the spot market and is about at pre-war levels. Nothing but distressed goods has been sold here as low as this. Another big producer quotes \$4.00 a pound in "large quantity," probably 100 pound lots. Selling agents in New York still name \$4.25 a pound inside. A leading importer quotes nominally \$4.00. The sharp cut is believed to be a move either to liquidate excess holdings or bring the market to a point below which the Dutch cannot ship caffeine in here and pay \$1.00 duty. American cost of production is said to be roughly \$4.00 a pound.

Camphor--American refiners advanced quotations for refined camphor to a basis of 96c a pound for bulk goods in barrels, a rise of 4c, early this week. The spot market for Japanese refined moved upward in sympathy, quotations being more or less unsettled at 95c @96c for slabs in cases. Small sizes were also higher, the only figure heard naming 98c for Jap ounces and \$1.00 for half ounces. This advance followed recent heavy importations of refined gum, the latter apparently entering into consumption quite rapidly after its arrival here. Demand has been steady from the drug trade of late, and with epidemics of influenza and pneumonia threatening in various big cities, the rise may be in anticipation of more active demand. Tuesday's cable from London indicates somewhat of an easier market there.

Caramel—Indicated as firmer here at 66c ranging up to 70c a gallon for sugar coloring.

Cocoa Butter—An active demand from the confectionery trade, chiefly, found the actual condition of spot supplies reduced, with the result that prices rose rapidly to a basis of 35c a pound for bulk material in bales on spot last week. Higher quotations for ship-

ment from Holland also a factor. Small sizes, fingers, and cakes, as to packing, brand, and seller at 35½c up to 40½c a pound.

Cod Liver Oil—The position is steady at recently named quotations, with one or two holders on spot not forcing their goods quite as strongly. A steady seasonal demand is noted. However, spot stocks are heavy and new catch oil is offered for shipment in the near future. Some spot sellers are evidently anxious to reduce their stocks at prevailing prices. Norwegian oil, 1921 catch, spot in barrels at \$20.00. Some brands commanding up to \$21.00. Newfoundland at \$17.00@\$18.00 spot.

Cream Tartar—Imported material continues to undersell domestic manufacturers, spot U.S.P. goods in barrels and casks offered at 23c@24c a pound. American makers at 26½c unchanged after the recent cut. Demand steady, but selling pressure is strong. Late cable from London reports a firmer market there for cream tartar.

Glycerin—The firmness of the glycerin market is pronounced. Demand for C.P. continues steady and according to a factor here will do so until along in April. Prices are unchanged but strong at the recent advance by refiners to 16½c a pound inside for drums. One Mid-western refiner at 17c for drums. Resale stocks under this are indicated as sold out, although one source says a lot is still obtainable at 16¼c. Cans at 18c@18½c. Dynamite glycerin quiet and in reduced demand from powder people, most sales going to C. P. refiners at 15c@15½c.

Mercury—Reports indicate that a supposed holder of spot quicksilver caused considerable excitement in this market late last week. In the face of a \$49.00 market here, tending to soften in competition and on reduced demand, the announcement of a sharp cut brought out a flurry of buying by consumers who were attracted by the low price. Indications point to sales of some 2,000 flasks at \$43.50 spot, which, however, according to reports, the seller cannot deliver. Following the apparent break and story of short seller, the market reacted to \$48.00 a flask, the general position appearing somewhat firmer than prior to the flurry. Situation this week quiet and routine.

Quinine—In steady seasonal demand, but principally in small quantities of a jobbing character. Reports of shading well under American makers could not be confirmed, 58c an ounce in 100s being the lowest heard here, and this for Japanese sulfate. Others at 59c for imported. Domestic makers adhere to 60c an ounce in 100s unchanged.

Rochelle Salt—Imported cheaper at 18c a pound following the recent two cent cut by American makers to 21c.

Strychnine—Manufacturers made a rather unexpected and sharp cut in strychnine sulfate, alkaloid and minor salts late last week. Possibly the new prices presage an open cut in nux vomica which has been admittedly too high for some time past. The new basis is for 100 ounce lots bulk as follows: sulfate, crystal and powder, 88c; alkaloid, crystals, \$1.20, powder, \$1.10; acetate, arsenate, arsenated, glycerophosphate, bromide, muriate, nitrate, phosphate, \$1.10; saccharinate, \$2.20

The plant of the Stern Rendering Co., River Road, Kearny, N. J., was destroyed by fire, recently, with loss estimated at about \$300,000, including equipment. Louis Stern is head of the company.

RESTRICTIONS ON DENATURING ALCOHOL

(Special to DRUG & CHEMICAL MARKETS)

Washington, D. C., Feb. 1—The Commissioner of Internal Revenue is sending a notice to collectors in connection with the use of specially denatured alcohol for manufacturing purposes, in which he says:

"Attention is called to the procedure outlined in Articles 114 to 116, inclusive, of Regulations No 61 relative to the procurement and use of specially denatured alcohol for manufacturing purposes. It is desired that a thorough preliminary examination and investigation be made by the Collector of Internal Revenue before any new application for the use of specially denatured alcohol is approved. This investigation should include not only the inspection of the premises in order to ascertain that a locked storeroom has been provided in accordance with the regulations, but careful inquiry should be made into the character of the applicant, his previous experience in the business to be conducted on the premises, and the character of other business heretofore engaged in. Any unusual conditions or lack of facilities for carrying on the manufacturing operations should be particularly

ENFORCING NARCOTIC REGULATIONS

(Special to DRUG & CHEMICAL MARKETS)

Washington, D. C., Feb. 1.—Commissioner of Internal Revenue Blair is sending the following announcement to importers, manufacturers and wholesale dealers under the Harrison Narcotic Law:

"Column 1 of Forms 810a, 810b, 811a and 811b calls for the date of the official order form covering each transaction reported. Many importers and manufacturers have been reporting the dates of receipts of merchandise on Form 810a and the dates of shipments on Form 810b instead of the dates of the order forms issued and received, respectively. Many wholesale dealers have made the same error with respect to Forms 811a and 811b.

"Monthly returns hereafter rendered must show in the manner required the date of each official order form issued or received. Transactions must be reported in the return for the month in which the merchandise is received or shipped regardless of the dates of the order forms. The day of the month when the drugs are received or shipped is not to be specifically reported."

PREPARING FOR DRUG EXPOSITION

Managers of the National Drug and Sundries Exposition, which will be held at Atlanta, Ga., Sept. 4 to 9, are already making reservations for space. The president of the Exposition Company is D. C. Keller, president of the Dow Drug Co., Cincinnati, president of Cincinnati Retail Merchants Association, a director of the Cincinnati Chamber of Commerce, and president of the Consolidated Drug Merchants; the vice president is D. G. Wise, head of the Wise Drug Co., Atlanta.

W. S. Elkin, Jr., is advisory counsel. He was formerly president of the National Association of Retail Druggists. J. P. McCarthy, Boston, is also advisory counsel.

The Forty-eighth annual meeting of the National Wholesale Druggists' Ass'n to be held at the Broadmoor Hotel, Colorado Springs, Colorado, has been changed from the week beginning Oct. 9, 1922, to one week earlier, namely Oct. 2-5, inclusive. By advancing the date one week members will gain the advantage of summer tourist rates to Colorado Springs.

The Intermediate and Dye Market

Current Spot Quotations of Intermediates and Dyes, Pages 301-302

BUYERS TAKING ONLY SMALL LOTS

Price Shading Fails to Stimulate Consumers, Who Await Action on the Tariff Before Increasing Stocks —Coal-Tar Crudes Still Tight — Phenol Supplies Hard to Find Among Outside Dealers

PRICE CHANGES IN NEW YORK (Stocks in First Hands) Advanced No Advances

Declined

Acid Gamma, 25c fb. Dimethylaniline, 1c fb. Dinitrochlorobenzene, 2c fb. Para-nitrochlorobenzene, 2c fb.

Trend of the	Market			
		Last	Last	Last
	Today	Week	Month	Year
Benzene, C. Pgal.	\$.29	\$.29	\$.29	\$.30
Naphthalene, flaketb.	.073/2	.073/2	.071/2	.09
Phenoltb.	.11	.11	.11	.09
Xylene, 10 degreesgal.	.35	.85	.35	.45
Toluene, puregal.	.30	.30	.30	.30
Aniline Oilb.	.161/2	.161/2	.161/2	.20
Benzaldehydetb.	.45	.45	.45	.45
Betanaphthol, dist	.30	.30	.30	.35
Paranitroanilinetb.	.77	.77	.77	.90
o-Toluidinetb.	.20	.20	.20	.27
Average	0.300	0.300	0.300	0.341

Actual business in dyes and intermediates shows little improvement at present. Consumers are refusing to stock up at least until the final settlement of the tariff question in Washington and present requirements are very small. Dyes imported under license are supplying a considerable part of the present demand in spite of the sharp competition between domestic makers. Prices are subject to heavy discounts wherever business is offered and some makers are choosing to hold out of the market rather than meet the ruinous figures at which business is being put through. Unquestionably, buyers control the market in coal-tar derivatives as in no other group of commodities. The basic dves and the intermediates from which they are made are apparently leading the market at present, if the present limited movement can be considered to have a leader.

The price situation is very unsteady with the exception of the coal-tar crudes. Supplies of crudes are still tight and prices in this direction are correspondingly firm. Phenol is particularly tight among outside holders and supplies at recent levels are increasingly hard to find. Benzene is not to be had from outside dealers, and refiners are very firm in their ideas. Picric acid is subject to decided shading. Gamma acid has been reduced following competition. Dimethylaniline has eased off under pressure. Dinitrochlorobenzene is quoted lower by makers. Aniline oil is holding at recent levels as competition has been reduced by the fact that makers are unwilling to go below present prices on account of the narrow margin of profit which is left to them at present. Betanaphthol and alpha-naphthylamine are neglected at present. Para-nitroaniline is holding firm at prevailing levels. Para-nitrochlorobenzene is lower.

Coal-Tar Crudes

Benzene—Refiners are holding their prices on C. P. at 28c@35c per gallon in tank cars and drums according to quantity. Supplies are very short and outside

holders are unable to offer at any price. Production is far short of demand and there is no immediate prospect of improvement.

Naphthalene—Refiners are holding prices at 7½c@ 8½c per pound for flake and 8½c@9½c per pound for balls. There are a few lots of flake to be had in the market at 7c and slightly below, but the greater part of the business going at present is at the first hand level. Demand is fair.

Phenol—Many holders of outside stocks of phenol are naming 12c per pound at present on a par with the surplus government stock price, but it is still possible to do 11c in some directions for quantity. Outside stocks are not at all plentiful, having been pretty well cleaned out by the recent export demand.

Toluene—Refiners are firm at 30c@36c per gallon in tank cars and drums. Supplies are not excessive neither are they as tight as benzene stocks, but little or none is to be had from second hands.

Intermediates

Acid, 1, 2, 4—Makers are quoting \$1.00 per pound in the absence of more than fragmentary demand.

Acid, Gamma—Prices are quoted lower on continued shading by makers in competition. Openly quoted prices are now given as \$2 per pound and there is very little doubt that \$1.90 can be done on firm business in quantity. One manufacturer is holding out for much higher prices.

Acid, H—Some makers are doing 90c freely but others are quoting 95c as their quantity figure. Business is of routine proportions and little attention is being given this acid in price cutting.

Acid, Nevile & Winter's—Makers are naming \$1.30 @\$1.35 per pound according to quantity. Business is slow.

Acid, Picric—Competition between makers for such business as is offered is very keen and there is no question that the quoted figures can be shaded on quantity business although little shading on large quantities has been offered lately. Single barrels can be done at 20c per pound with less than barrel lots at a considerable advance over this figure.

Alpha-naphthylamine—This material has been neglected recently and prices are undisturbed at 30c per pound with shading possible.

Aniline Oil—Some makers of aniline oil have decided that it will be better for them to withdraw from the market than to cut prices to ruinous levels to get business. Spot oil in drums is offered at 16½c per pound from store and there is no doubt that this figure can be shaded at least a cent for contract business in reasonable quantity.

Benzidine—Makers quote base at 90c@95c per pound but are doing little business at this level. Sulfate is quoted at 70c@75c per pound according to quantity.

Beta-naphthol—Interest has been lacking recently and prices have not been changed from the previously quoted level of 30c per pound. Quantity business would probably bring price concessions on this figure, if offered.

Dianisidine—Makers are holding prices at \$4.75@ \$4.80 per pound.

Dimethylaniline—Competition has developed between makers, and, while the quoted price has been held at 40c business has been put through at 38c. The situation looks decidedly weak and it is not improbable that further concessions will be made.

Dinitrochlorobenzene—Makers have reduced their quotations to 25c@27c per pound according to quantity.

Ortho-anisidine—Makers are naming \$2.00@\$2.10 per pound.

Para-nitroaniline—Makers are holding firm at 77c@ 80c per pound according to quantity. Apparently this price is firmer than any others in intermediates. A fair amount of business has been put through at these levels.

Para-nitrochlorobenzene—Makers have reduced their prices and are now quoting 27c@30c per pound on this material.

USING WAR PICRIC ACID ON STUMPS

(Special to DRUG & CHEMICAL MARKETS)

Washington, D. C., Feb. 1.—Distribution of picric acid, a surplus war explosive, is well under way. Up to the first of the year 2,612,500 pounds had been shipped in 108 carloads, the work being done under the supervision of the Bureau of Public Roads, United States Department of Agriculture. All shipments to date have been made from Sparta, Wis., but the supply there is now practically exhausted, and the remainder of the original 12,000,000 pounds available will be shipped from Fort Wingate, N. Mex.

Thus far the Lake States have shown more interest in picric acid as an explosive than other sections and have taken by far the largest quantity. Indications are, however, that the southern and southeastern states will call for a considerable part of their allotment during the next few months. The explosive is used largely for stump blowing.

F. E. Atteaux Co., Boston, has purchased the interests of L. L. Briden and Matthew Kinneburgh, of L. L. Briden Co., Boston, Mass., and R. J. Currier, Syracuse, N. Y., in the Palatine Aniline Chemical Corp., organized in New York for the manufacture of colors and dyestuffs, with plant at Poughkeepsie. F. E. Atteaux, of F. E. Atteaux Co., president of the Poughkeepsie company, was one of its organizers.

A study of the unsaturated hydrocarbons in industrial gases is being made by the Bureau of Mines, with a view to developing economic methods of the manufacture of alcohols from them. Ethyl and propyl alcohols in particular are being sought. Gas distilled from a mixture of oil and coal at present is being studied in co-operation with the Trent Process Corp., of Washington.

The Allied Reparations Commission has decided to leave the question whether the Textile Alliance or the minority dye interests in the United States shall be recognized by the Commission as the unofficial American agent, entirely in the hands of the American Government. The American allotment of German dyes is valued at \$2,000,000 annually.

The Wyoming Dyestuff & Chemical Corp., of Scranton, Pa., manufacturers of sulfur colors, has purchased new machinery for greater production. In December the capital of the company was increased to \$250,000. Dr. A. H. Ney is president and general manager.

Senator Shortridge of California, chairman of the Senate Dye Lobby Investigating Committee, says he will call a meeting of the Committee for Thursday or Friday of this week.

STARCHES AND DEXTRINS HIGHER

Improvement in Demand Encourages Dealers in Domestic Potato Starch—Selling at 5½ Cents Compared With Imported Material at 6¾ Cents

The market for starches and dextrins has improved noticeably during the week and higher prices are named on most items of the list. Demand is improving and sellers are much encouraged.

British Gum—Quotations are higher from spot sellers at \$3.25@\$3.62 per hundred according to quantity.

Dextrin—Corn dextrin is quoted higher at \$2.80@\$3.12 per hundred for white or yellow in carlots and

less. Potato dextrin is firm at 8c@81/2c per pound.

Starches—Prices are quoted higher on improved business in starches. Powdered starch is named at \$2.15@\$2.46 per hundred and pearl at \$2.05@\$2.36 per hundred for carlots and less in bags. Domestic potato starch is firmer at 5¼c@5½c per pound against an imported price of 6 3-8c@6 3-4c per pound, duty paid.

Tapioca Flour—The market continues sluggish although slight improvement is noted in some quarters. Prices range from 2½c@3c for low grade up to 4c@4½c per pound for high grade tapioca flour.

CANADA'S DYE IMPORTS SMALLER

(Special to DRUG & CHEMICAL MARKETS)

Toronto, Canada, Fcb. 1.—The monthly report of the trade of Canada for November gives the value of imports of dyes and tanning materials as follows: From Britain, \$38,341; United States, \$309,405; other countries, \$105,261; total, \$453,007; as compared with imports from Britain, \$102,905; United States, \$421,593; other countries, \$67,492; total, \$592,050, for November, 1920.

Imports of aniline and coal-tar dyes included in the above were: from Britain, 48,450 pounds valued at \$37,171; United States, 136,786 pounds, \$124,730; Germany, 8,077 pounds, \$53,993; Switzerland, 22,395 pounds, \$24,542; other countries, 8,935 pounds, \$11,161; total, 224,643 pounds valued at \$251,602; as compared with imports from Britain, 103,842 pounds, \$41,631; United States, 158,817 pounds, \$176,870; Germany, 65 pounds, \$130; Switzerland, 3,214 pounds, \$7,988; total, 265,938 pounds valued at \$226,619, in November, 1920.

COAL-TAR PRODUCTS STRONGER

London, Jan. 18.—There seems to be a slightly better tone governing the market for coal-tar products this week. Values throughout are quoted about the same as last week. Aniline oil, 1s 4d. per pound, drums extra, remains practically lifeless with values nominal. Betanaphthol, 1s 9d. per pound, remains dull with values weak. Paranitroaniline, about 6s per pound, casks free, continues with values about the same. Resorcin is about 8s per pound. Values are not firm and demand is very poor.

Benzene, pure 3s 3d, 90°, 2s 9d, per gallon in drums, values steady and there has been some demand. Toluene, pure, 3s 2d. commercial, 2s 9d, per gallon in drums. The market is still slow but values are maintained.

Naphthalene, crude, £7 to £9, flakes, £19, crystals £18 10s, powder, £17; balls £28, candles, £40, tablets, £40, per ton. Bags and casks free. The demand is still small. Values unchanged.

The Piel Bros. Starch Co., State Life Bldg., Indianapolis, Ind., has filed plans for an addition to its plant on Drover st., to cost about \$50,000. William F. Piel is president.

The Oil Market

Current Spot Quotations of Oils, Tallows, Greases, Page 304; Naval Stores, Page 305

ARGENTINE FLAXSEED

Crushers Immediately Quote Higher Prices for Linseed Oil—Cottonseed Oil Moves Up in All Markets —Coconut Oil Easier—Denatured Olive and Spot Foots Lower—China Wood Oil For Shipment Declines

PRICE CHANGES IN NEW YORK (Stocks in First Hands)

Cettenseed, 4c lb. Linseed, 3c gal. Turpentine, 1c gal. Whale, 5c gal. Declined

Coconut, 1/4c tb. Olive, Denatured, 5c gal. Degras, Eng., 1/4c tb.

	Today	Last Week	Last Month	Last Year
Cod Oil, N. F	\$.44 .0334 .65 .38 1.32 .0734 .1034 .0836 .0738 .77 1.10 .11 .09	\$.44 .033/4 .65 .38 1.32 .07/5 .10/5 .083/4 .07/8 .77/8 1.15 .11 .09	\$.42 .03½ .67 .33 1.25 .07½ .11¼ .09¼ .07 .67 1.16 .11 .09	\$.70 .06 .82 .38 1.65 .08 .14% .05½ .77 2.50 .13 .08½

Traders in fatty oils report a noticeable improvement in demand during the week. Consumers are still confining their purchases to small lots but there is quite an increase in the total volume of business being done. Values generally are showing an upward tendency although there have been some declines recorded during the period. The phenomenal advance on Argentine flaxseed as Argentine exchange advanced has been the feature of the week, especially considering the slowness with which crushers of oil have moved their prices to correspond.

Cottonseed oil has moved up gradually on increasing interest and is quoted higher in all markets. Linseed oil has been advanced by crushers on advancing flaxseed prices, and corresponding advances have been made by importers. Coconut oil is easy with lower prices quoted here. Denatured olive and spot foots are lower. Soya bean and peanut oils are neglected but unchanged. China wood oil is easier for shipment.

Animal oil prices are unchanged with the exception of English degras which is lower. American degras is off the market for the time being. Lard oil is quoted over a range according to seller. The lower grades of neatsfoot oil are firmer.

Fish oil prices are tending upward. Cod oil is scarce and is quoted over a range according to holder but is tending upward. Menhaden oil crude is very firm at recently prevailing prices while refined grades have been advanced. Whale oil is quoted higher.

Turpentine has been advanced in all markets. Rosin prices have been adjusted during the week leaving a wider range according to quality.

Linseed Oil—Prices have been advanced by crushers to a basis of 77c per gallon in carlots cooperage basis on the sharp advance in the flaxseed markets. The advance in oil came far behind the advance in seed

and is hardly sufficient to cover the increased cost so far. The London price is advancing and was quoted at 33s 9d per quintal over the week end. Antwerp has not advanced as far and oil there was quoted at 152 francs per 100 kilos. Spot English oil is very firm at 66c@66½c per gallon with shipments correspondingly firm.

Advances in flaxseed prices in all markets have been recorded during the past week. Argentine prices led the advance on advancing exchange there and were quoted over the week end at \$1.73½ per bushel, 24½c per bushel above the price of the previous week. The advances in North American markets have not been so sharp. Winnipeg prices are quoted at \$1.96¾ per bushel for May seed and Duluth, at \$2.21@\$2.23½ per bushel according to position.

Castor Oil—Prices are unchanged on sluggish demand. No. 1 oil is held at 11½c and No. 3 at 10½c@ 10¾c per pound.

China Wood Oil—Shipment prices have eased off slightly and nearby oil is quoted at 10½c per pound c.i.f. Spot oil is unchanged at 13½c@13½c per pound in barrels. Coast prices are nominal at 12½c in barrels. One or two large sales have been made during the week but as a rule buying has been confined to small lots.

Coconut Oil—Prices have weakened again on the spot and are quoted lower. Ceylon oil is to be had at 8½c@9c per pound in barrels and 7¾c in tanks spot. Cochin oil on the spot is quoted at 9½c@10c in barrels and 8½c@8¾c in tanks. Manila oil on the Coast is nominal at 75%c in sellers' tanks as no business is being done there. Edible coconut oil is held at 11c@11¼c on the spot.

Corn Oil—This oil is still neglected and prices are unchanged on a basis of 63/4c@7c per pound in tank cars at mills.

Cottonseed Oil—Crude cottonseed oil has been advanced during the week to a basis of 73/8c@7½c per pound in buyers' tanks at mills and this price is being firmly maintained in the absence of heavy stocks. Prime summer yellow on the Exchange here has shown a similar rise, and is now in fairly active demand at 9c@10c per pound according to position. The March and May position are leading the activity.

Olive Oil—Denatured olive has declined to \$1.10@ \$1.15 per gallon according to seller. Foots on the spot are easier at 8c per pound compared with a shipment price of 8c@8¼c.

Palm Oil—This oil is neglected and prices are soft. Lagos prices are quoted at 7\(24\)c@8c, Bonny Old Calabar, 6\(44\)c@7c, and Niger, 6\(42\)c@6\(46\)c per pound.

Peanut Oil—Crude prices are holding at 73/4c@8c per pound in buyers' tanks f.o.b. mills in spite of a lack of consuming interest.

Rapeseed Oil—Refined rapeseed oil is held at 85c@ 86c per gallon on the spot and blown, at 95c@\$1.00 per gallon according to seller and quality.

Soya Bean Oil—Little interest has been shown in soya bean oil during the past week and prices have remained without change. Coast prices are quoted at 7½c@7¾c per pound in sellers' tanks. Spot crude in barrels is held at 9½c@9¾c per pound according to

seller. Edible on the spot is dull at 101/2c@103/c per LOCATION OF STANDARD TYPES OF ROSIN

Animal Oils

Degras-American degras is not to be had at present and prices are purely nominal at 334c. English degras is lower here at 31/2c@4c per pound according to seller and quantity, with large lots offered at Philadelphia at 3c. Neutral degras is easy at 6c@7c per pound.

Lard Oil-Prime lard oil is quoted over a range according to seller at 85c@95c per gallon with off-prime at 83c@93c. No. 1 is quoted at 65c@75c, extra No. 1, at 70c@80c, and No. 2 at 63c@72c per gallon.

Neatsfoot Oil-Pure neatsfoot oil is quoted at \$1.05 per gallon. The 30 degree cold test oil is firmer at \$1.20 and 20 degree, at \$1.32.

Oleo Oil-Prices are unchanged with No. 1 at 103/4c and No. 2 at 93/4c. No. 3 is nominal at 9c per pound.

Fish Oils

Cod Oil-Prices are very firm generally on the shortage of supplies in primary markets although some holders on the spot are offering at prices below the market. The range quoted for Newfoundland cod oil in barrels on the spot is 42c@50c per gallon according to seller and quality. Apparently the lowest prices at which prime tanked oil is to be had are 44c@46c per gallon but there is some doubt as to the freedom with which sellers would offer at these figures.

Herring Oil-Spot stocks are practically nil and prices are nominal at 44c@45c per gallon.

Menhaden Oil-Refiners of menhaden oil have advanced their prices and are now quoting light strained at 48c, yellow bleached at 50c, and extra bleached at 52c per gallon. Blown fish oil is unchanged at 57c. The advance has followed the recent extreme tightness of crude which is not to be had below 38c@40c per gallon f.o.b. fish factories where any stocks are to be had at all.

Whale Oil-Refined whale oil is firmer on firmness in crude. Natural winter is higher at 65c and bleached winter, at 70c per gallon. No. 1 crude oil in tanks on the coast is firmer at 5c@51/4c per pound.

Naval Stores

Rosin-The lower grade rosins have been reduced about 10c per barrel although the higher qualities are unchanged. The present price range is \$5.30 for B to \$7.75 for WW per 280 pound barrel.

Turpentine-Prices are higher in all markets. Spot spirits is quoted at 93c@931/2c per gallon. Savannah prices are firmer at 863/4c@871/2c per gallon and the London market has advanced to 72c 6d per quintal.

CHANGES IN ARGENTINE TARIFF

Argentina has made the following changes in export duties, payable in Argentine gold:

										I	06	er	* ;			d	luty		New duty metric
															1	tc	n		ton
Quebracho	logs .		 														0.	82	0.65
Quebracho	extrac	t															3.	84	3.60
Linseed, in	bags			 										۰			1.	36	1.63
Linseed, in	bulk		 														1.:	11	1.39

The National Association of Manufacturers opened a two-day convention in Washington, D. C., on Tuesday, with a view to impressing on Congress the Association's stand in favor of a tariff and the American valuation

(Special Correspondence to DRUG & CHEMICAL MARKETS) Washington, D. C., Feb. 1-Standard glass rosin types and grading equipment prepared by the Bureau of Chemistry, Department of Agriculture, are located in the following places for the use of rosin dealers and others; Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C.; Supervising Inspector of Naval Stores, Board of Trade, Savannah, Ga.; Supervising Inspector of Naval Stores, Jacksonville, Fla.; Board of Trade, Brunswick, Ga.; Chambers of Commerce at Pensacola, Fla.; Mobile, Ala., Philadelphia, Pa.; Turpentine and Rosin Producers' Associations, New Orleans, La.; Supervising Inspector of Naval Stores, Produce Exchange, New York; U. S. Food & Drug Inspection Laboratories at Boston, Chicago, San Francisco, J. G. Drouillard Co., Cleveland, Detroit Oil, Paint & Varnish Club, Detroit; Chairman, Naval Stores Committee, National Paint, Oil & Varnish Association, care of Isaac Winkler & Bro. Co., Cincinnati.

STENCILLING GLYCERIN DRUMS

A suggestion for improvements in stencilling glycerin drums has been sent by the Operating Dept. of Du Pont's to Garrigues, Inc., and given out to the trade by the latter as follows: "When a shipment of glycerin comes to the plant the drums are rolled onto the skids and turned so that the bunghole is up so as to prevent any loss of glycerin due to leaky bungs. It is suggested that a standard practice be made where the drum is stencilled with number of drums gross, tare and net weights, kind of glycerin, etc., that the stencil be so placed that the lettering will be right side up when the drum is on the skids with bung hole up. This will assist greatly in getting a rapid and an accurate check on all drums. especially at inventory time. There should be no additional expense at all in stencilling the drums and yet considerable time will be saved in checking in the glycerin."

At the annual convention of the Saskatchewan Agricultural Societies Association at Saskatoon on Jan. 10,. President Walter C. Murray, of Saskatchewan University, drew attention to the important experiments in progress in regard to the chemical effect of alkali on concrete, in which the science faculty was co-operating. If they succeeded in finding a solution of the problem of the destruction of concrete by alkali it would result in the saving of millions of dollars annually in the west. Much progress in this direction had already been made.

A Pittsburgh, Pa., Company has been organized to manufacture an anti-germ solution known as hyclorite, which is said to be eight times stronger than the Dakin solution used with success during the war, and one hundred times more powerful than iodine.

Fire damaged the shoe polish and stove polish plant of F. F. Dalley Co., Buffalo, N. Y., to the extent of \$140,000, on Jan. 27. The fire was caused by spontaneous combustion. The plant and stock were insured for

Herbert F. Croen is in charge of a new branch office recently opened by Morana, Inc., in Mexico City, located at La de Lopez 6, Mexico, D. F. Full Morana line of essential oils and perfume raw materials will be carried in stock there.

Charles F. Abbott, director of Sales and Research, National Aniline and Chemical Co., was confined to his home with a cold last week, but is again at his desk.

A. Klipstein & Co. have obtained a judgment for \$743.62 against Coff-Garrod Co., Inc.

The Crude Drug Market

Current Spot Quotations of Crude Drugs, Pages 306-307

SEED PRICES FEATURE BOTANICALS

Many Higher Here and For Shipment-Poppy, Celery, Cumin, and Fennel Strong-Agar Agar Up-Stramonium Weak-Belladonna Leaves and Root Easier -Cheaper Canada Balsam

PRICE CHANGES IN NEW YORK (Stocks in First Hands) Advanced

Agar Agar, No. 2, 3, 5c tb. Culver's Root, 2c tb. Jalap Root, Pd., 1c tb. Rhubarb Rt., 5c tb.

Poppy Seed, Dutch, 1c tb. Wormseed, Levant, 20c tb. Celery Seed, 1/4c tb. Pepper, Blck. Sing., 11/4c tb.

Declined

Almond Meal, 5c tb.
Leeches, \$1 hundred
Lycopodium, 5c tb.
Balsam Canada Fir, \$1 gal.
Chamomiles, Hung, 1c tb.
Cloves, Zanzib., ½c tb

Trend of the Market

	Today	Last Week	Last Month	Last Year
Aconite Root, U.S.P	\$.22	\$.22	\$.23	\$.35
Buchu Leaves, Short	1.05	1.05	1.08	2.30
Cantharides, Russian	2.50	2.50	2.50	2.50
Cocculus Indicus	.061/2	.061/2	$.06\frac{1}{2}$.18
Ergot, Spanish	1.03	1.03	1.05	.65
Insect Powder, pure	.39	.39	.36	.55
Ipecac, Cartagena, powd	1.60	1.60	1.60	2.75
Nux Vomica	.10	.10	.10	.12
Opium, gum	5.50	5.50	5.50	7.50
Rhubarb Root, H. D		.50	.45	.50
Tragacanth, No. 1, ribbon	2.50	2.50	2.50	3.90
Wild Cherry Bk. thin nat		.09	.09	.10
Average	1.36	1.36	1.36	1.78

In a market which has been little beyond the same dull affair of a month back, the current week saw higher seed prices, both for shipment and on the spot, feature the trading here. Poppy, celery, cumin, rape, fennel, and Levant wormseed have all scored recent advances and comprise the firmest group of the spot market. Demand for crude drugs extends little beyound the routine boundaries as consumers purchase only sufficient to carry their plants along from week to week. Even seasonal items, although meeting with a steady cail, are not moving in large individual lots, but rather in numerous frequently repeated small orders. Prices are standing up quite firmly as a group, though the tendency to shade is somewhat more in evidence than any tendency to advance prices, except in cases amounting to arbitrary withdrawal from the market by moving up prices.

Outside of a firmer seed group, agar agar continues in the cheaper grades. to stiffen up, particularly Powdered jalap root is slightly firmer in keeping with higher whole prices. Culver's root is firmer. Spot black pepper is very scarce although goods afloat are near-by. Belladonna leaves and root have been cut in some quarters. Prices vary as to test. Powdered licorice is a weak item. Whole rhubarb is again practically eliminated from this market. Cloves and fenugreek seed are easier. Balsam Canada fir has been cut. Stramonium leaves are softer.

Crude Drugs

Agar Agar-Prices for the cheaper grades of agar agar, Nos. 2 and 3 have been advanced on spot following sharply higher shipment figures from Japan. The new basis for spot goods is 80c@83c a pound for

a good No. 1, 70c@75c a pound for No. 2, and 50c@ 55c for No. 3.

Almond Meal-Cheaper here at 28c@30c per pound on spot.

Cantharides-Powdered material in both Chinese and Russian very firm here and in small supply. Former at \$1.10, and latter at \$3.00.

Ergot-Although sales have been made this week at \$1.03 on spot on less than 500 pound lots, a leading importer on receipt of higher cables from Spain, announces nothing under \$1.10 at this time. New figures for shipment from Cadiz name 95c and \$1.00 c. i. f. New York. Demand from consumers continues limited with holders of spot goods apparently more willing to shade prices than big importers.

Leeches-New lots of imported leeches are available here at \$7.000 a hundred ranging to \$4.50 in lots of

a thousand or more.

Lycopodium-Another slightly lower price has been noted this week, holders doing \$1.10 a pound for spot

22 pound packages, ranging to \$1.15.

Nux Vomica-Does the sharp cut in strychnine made late last week by American manufacturers presage lower prices for nux vomica? The position of nux has been admittedly too high for some time past, and although consistent bullish reports come out of Calcutta, the actions here of importers do not appear reassuring. Powdered on spot in barrels easy at 13c a pound for U. S. P. with spot goods pressing for sale at this figure. Buttons at 10c unchanged with little moving.

Balsams

Canada balsam of fir is cheaper on spot at \$10.75@ \$11.00 a gallon for so-called genuine. Others unchanged, Oregon \$1.30@\$1.45 a gallon; Peru \$1.50 a

Barks

fo

ne

da

he

@

sh

on

hu

sli

ne

bo

ma

at

Buckthorn-Dull and attracting little interest at 7c a pound in a small way.

Elm-Grinding and powdered bark reported cheaper on spot at 12c and 14c@15c a pound respectively. Selected ranges from 30c up to 32c a pound on spot as to seller and quality. Demand continues small and competition keen.

Flowers

Chamomile-One quarter indicates Hungarian chamomile flowers at 19c a pound in cases. Most sellers holding to 20c and one seller still at 21c. Range as to quality. Demand routine. Romans not a factor here.

Insect-Pure powder has quieted down after the flurry of several weeks ago. Prices are firmly maintained at 39c@42c a pound for all flowers as to brand and seller. A broker offers contract for delivery over this year at 37c in barrels.

Saffron-Although \$16.75 appears best on spot for Spanish in tins, a broker claims a source of supply at \$16.50 which was denied by the \$16.75 seller and could not be located. American dull at \$1.15.

Leaves and Herbs

Belladonna-Lower prices are noted here for belladonna leaves, 11c a pound indicated for U. S. P. goods, running just .3 per cent T. A. For high test goods, running .5 per cent, 14c a pound is still demanded by sellers here.

Buchu-Nothing new has developed this week. Con-

sumers and importers alike are awaiting definite offers or or news on 1922 crop. Cables to Cape Town eliciting news or offers for shipment have met with meagre response. On spot demand is very quiet with little outside of small jobbing lots for immediate use, being sold. Prices unchanged at \$1.05 in single bales, with a quantity reported available at \$1.00 a pound.

Henna—Bales of whole leaf on spot at 17c; less 18c. Powdered and ground at 21c spot.

Sage—For good quality Dalmatian 6c is now best with some holders asking 6½c. Poor stuff at 5½c. Greek 3½c@4c as to quality.

Stramonium—The position of the leaves continues weak and shading is common. Holders naming slightly easier at 12c a pound openly.

Uva Ursi—The market stands at 5c@6c spot for small lots. An unfilled inquiry is in this market for five tons at five cents, but stocks here are insufficient to fill half of this order.

Roots

Althea—A seller of one case of good quality cut althea at 10c, moved his price up to 11c when the buyer returned for another lot of three cases of the same.

Belladonna—Some holders have cut quotations for the root on spot to a basis of 12c a pound ranging up to 14c.

Calamus—All the 35c bleached root has been cleaned out here and 45c a pound is now the market. Natural root unchanged and weak at 10c.

Culvers—Somewhat firmer and in small supply on the spot at 17c@18c a pound.

Doggrass—Good quality, U. S. P., imported root at 9c unchanged, Range to 11c as to seller.

Ipecac—Cartagena quiet at \$1.25 for whole and \$1.60 for powder spot. Rio practically off the market here as noted some weeks ago.

Jalap—Powdered is slightly higher at 23c a pound for U. S. P. goods on spot in keeping with a 15c@20c market for whole root. Both scarce,

Licorice—Powdered slightly easier at 9½c a pound for spot barrels.

Rhubarb—Although offers late last week and early this week were made at 45c and 50c, these holdings are reported cleaned out and a leading broker finds nothing under 55c for whole cases on spot late Tuesday. Powdered still selling at 60c and 65c a pound in a limited way. A few cases offered to arrive at 50c. Seeds, Spices, etc.

Cumin-Very firm and scarce at 10½c@11c a pound here for Morocco.

Fennel—German at 11½@12½c spot. French 11c @12c. Continue scarce and firm.

Poppy—Dutch again up and now inside at 12½c@ 13c on spot, with the latter looking like best. For shipment at 12¾c c. i. f.

Wormseed—Sales of Levant wormseed were made on spot last week as high as \$1.85 a pound for several hundred pounds.

Cloves—Uncertain at 32½ c ranging to 34c a pound as to quantity for Zanzibar cloves. Moving in routine but steady order.

Ginger—African firmer at 9½c. Japanese 9¼c@9½c spot. ABC and lemon cochin on spot and near-by slightly easier at 11½c up to 13c a pound. Jamaica's new crop grinding 31c@33c, old crop 37c@38c, fancy bold 38c@40c. London reported buying up all Jamaica available.

Pepper—Black Singapore temporarily scarce on spot at 10c. Afloat at 8½c.

CHANGES IN NARCOTIC ORDER FORMS

For the purpose of throwing additional safeguards about the traffic in narcotics the Commissioner has authorized an important change in the order forms. In the future, duplicate forms will be printed in red ink, while the originals will be in black, as heretofore, says a notice issued by the National Wholesale Druggists Association. This change will facilitate distinguishing originals from duplicates and is counted upon to obviate mistakes and irregularities that have caused the Bureau much concern. In a number of cases, manufacturers and wholesale druggists, apparently in the best of faith, have filled duplicate order forms without detecting the fact that they were not originals.

The Bureau has had under consideration for some weeks a departure in the preparation of order forms that is designed to protect the Government against fraud but that would cause great additional labor and inconvenience to the drug trade, especially to the jobber. The new plan, which has not been adopted and against which, no doubt, there will be many vigorous protests, contemplates the use of a separate form for each narcotic preparation. This would be no great hardship in the case of the average retail druggist, but it would multiply many times the labor and expense incident to operating the narcotic department of the average jobbing house.

WOULD DEPORT NARCOTIC PEDDLERS

(Special to Drug and Chemical Markets)
Washington, D. C., Feb. 1.—Representative McArthur of Oregon, has introduced a bill in the House
"Providing for the deportation of aliens convicted of
unlawful possession of, or traffic in drugs or narcotics."
The bill which has been referred to the Committee on

Immigration and Naturalization is as follows:
"That any alien who, at any time after entry into
the United States, shall have been convicted of any
violation of any law of the United States, or any State,
municipality, or other political sub-division thereof,
having for its purpose the suppression of the unlawful
importation, possession, sale, barter, or exchange of
any drug or narcotic shall, after payment of fine or
termination of sentence and upon warrant of the Secretary of Labor, be taken into custody and deported.

"Sec. 2. That any alien so deported who may thereafter return or attempt to return to the United States, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by imprisonment for a term of not less than six months nor more than two years, and at the termination of such sentence shall be deported."

EARNINGS OF THE CALVERT DRUG CO.

Baltimore, Feb. 1—R. E. Lee Williamson, president of the Calvert Drug Co., in a speech at the annual meeting, said that during 1921 the company had done a business of \$1,230,000, with every prospect that this total would be surpassed in 1922, and he estimated that the saving to the stockholder customers had been an equivalent of 15 per cent on the purchase price. The combined business of the co-operatives throughout the country, Mr. Williamson calculated amounted to about \$50,000,000 in 1920, and the results for 1921 would probably be larger.

At least \$500,000 annually should be spent to advertise St. Louis, Carl F. G. Meyer, president of Meyer Bros. Drug Co., said in a luncheon address before the Women's Advertising Club at Hotel Statler, St. Louis. "It is a shame to think that we are spending only \$50,000 a year to advertise St. Louis," he said.

The Essential Oil Market

Current Spot Quotations of Essential Oils and Aromatic Chemicals, Pages 308-309

HIGHER PRICES FOR CEYLON CITRONELLA

Spot Scarcity and Active Demand—East Indian Sandalwood Softer—Eucalyptus Lower for Shipment— Lemon Continues Weak Feature with Quantity Shading—Essential Oil Demand Generally Restricted

PRICE CHANGES IN NEW YORK (Stocks in First Hands)

Advanced
Oil Citronella, Ceylon, 6c lb.

Oil Amber, Rect., Sc tb.
Oil Eucalyptus, Aust., 2c tb.
Oil Vetivert, Bourbon, 25c tb.

Trend of the Market

	Today	Last Week	Last Month	Las.
Oil Bergamot	\$5.00	\$5.00	\$5.00	\$6.00
Oil Citronella. Ceylon	.52	.46	.42	.35
Oil Cloves	2.20	2.20	2.40	1.50
Oil Lemon	.65	.65	.65	.80
Oil Peppermint, Natural	1.70	1.70	1.75	4.25
Oil Sandalwood, E. I		7.20	7.25	9.25
Oil Sassafras, Artif	.52	.52	.53	.70
Benzaldehyde, U.S.P	1.25	1.25	1.25	1.00
Coumarin		3.25	3.60	5.00
Methyl Salicylate		.35	.35	.45
Vanillin	.55	.55	.55	.65
		2.40	2.17	2 20
Average	2.13	2.13	2.17	3.28

The general run of business in the essential oil trade has been rather restricted during the week. While some houses indicate that dullness has been the overshadowing feature, one leading importer stated that the largest orders which had been received since the middle of iast October, came in early this week. A few minor price adjustments are all that the market could boast of. The group values as a whole are quite stable with the moving element confined to six or seven items. In one or two instances, a tendency to shade is still predominant, but the firm items still compose that portion of the market which is attracting most attention. The bullish element on the spot appears to be getting stronger.

The outstanding feature of the market here has been the upward movement in Ceylon citronella as a result of the steady, heavy demand from consumers and the continued smallness of spot stocks. Some holders are shading East Indian sandalwood prices. Sassafras continues in a firmer position. Cheap Bourbon is offered for shipment. In some quarters, gaultheria and birch are firmer. Rosemary is a firm item. Higher shipment figures are heard for lavender. Shading in eucalyptus is noted on spot. Coumarin continues weak. Patchouli appears to be slightly stronger. White thyme oil is somewhat easier.

Essential Oils

Oil Almonds—Bitter oil almonds unchanged and quiet at \$4.75 a pound for U.S.P. with sans prussic acid at \$5.25.

Oil Anise—Demand steady, but confined to routine lots principally. Prices unchanged and steady at 55c a pound for technical as imported, and 65c for U.S.P. oil on spot.

Oil Bergamot—Most sellers are quoting openly at \$5.00 a pound for standard brands in coppers on spot.

The position is indicated as slightly firmer. In a big way, \$4.85 and \$4.90 are still being done, reports indicate. Cost to lay the oil down here for import is now about \$4.60@\$4.70, duty paid.

Oil Camphor—Easy and unchanged at 19c@20c a pound for spot cases, water white oil.

Oil Cassia—Stocks of technical on the spot are extremely small, and very closely held at \$1.30 a pound. Difficulties in importing owing to Dept. of Agriculture rulings makes the handling of this oil very troublesome. U.S.P. goods moving quietly at \$1.65.

Oil Citronella—The market for spot Ceylon citronella has moved very rapidly during the past few weeks. Prices have climbed up steadily. A week ago, 46c was done on spot. In two cent jumps, values moved up to 50c by the close of last week. At the beginning of the current week, 51c was indicated as a sale figure with spot sellers demanding 52c inside for drums. For shipment to arrive of goods afloat near-by, a sale was made late last week at 49c. On the spot stocks are greatly reduced with consumer demand active in view of the steadily rising price.

Oil Cloves—Continues to remain inactive and easy at \$2.20 a pound for spot U.S.P. oil in cans. Demand has slowed down to very small proportions here. The uncertainty of the spice makes the position of the oil doubtful.

Oil Eucalyptus—Although the spot situation has been weak for some time back and sellers have been doing 43c readily for cases, dealers are now naming lower at 42c openly as against 45c previously. Australian market weak and lower for shipment. Spot shading indicated on firm business here.

Oil Geranium—As to quality and seller, prices still vary widely. Genuine African is very scarce at \$7.00. Bourbon is firmly maintained at \$5.00@\$5.50 a pound for prime goods on spot. Prices under these figures heard for both types, quality not determined.

Oil Lavender—Oil of the flowers is still dull on spot owing chiefly to lack of demand. Sellers quote \$2.75 up to \$3.50 a pound for U.S.P. as to quality. Recent cables indicate a cost equivalent to \$4.00 duty paid for good quality 35 per cent ester standard oil. Spike easy at 90c@95c a pound spot, possibly \$100 for better quality.

Oil Lemon—Sales of small routine lots in coppers being made on spot at 65c a pound regularly for standard goods ranging up to 75c for some brands. In a big way, 63c, possibly 62c, has been done here within the past ten days, but in ten and twenty copper lots.

Oil Lemongrass—Weak and unsupported at \$1.00 a pound on spot.

Oil Orange—Both Italian and West Indian maintain a firmer position here. Prices are unchanged at \$2.15 @\$2.25 a pound for West Indian and \$3.00@\$3.25 for Italian. Demand is routine, but stocks are not large on spot and held by strong hands.

Oil Patchouli—For prime quality oil on spot, \$12.50 is being asked, \$10.00@\$12.50 being the market range here.

at cha

anı

and

D

w Do

at

iar

fig

co

ke

pet: \$3.5 to

SDO

wh

ma

how reper V fact up

and

Coll

Pro

curi

the

Protor advi-

Prin

this

preparent from tries,

porte ters

Co

land

- Oil Peppermint—The situation is quiet with prices unchanged and steady. Demand is slower and far from what it should be. For natural oil on spot, \$1.70 a pound in cases is still quoted, with U.S.P. at \$1.90.
- Oil Rosemary—A firm feature of the spot market at 50c for technical and 55c a pound for U.S.P. oil.
- Oil Sandalwood—Further shading of spot East Indian sandalwood prices brings an openly quoted inside figure of \$7.10 a pound. In a big way, this probably could be shaded. Demand reduced and competition keen. Tendency appears to be slightly easier.
- Oil Sassafras—Natural appears firm and unchanged at 90c a pound inside ranging to \$1.00. Artificial unchanged at 52c@53c.
- Oil Thyme-White U.S.P. oil thyme slightly easier at \$1.15@\$1.20 a pound spot. Red unchanged at \$1.00.
- Oil Wintergreen—Prices vary widely. One house announces higher prices for genuine gaultheria at \$7.00 and for birch at \$2.50. Range down to \$4.00 for gaultheria and \$2.00 for the latter.

Aromatic Chemicals

Coumarin—Unchanged and weak here with competition between sellers keen. Manufacturers quote \$3.50 a pound inside while imported goods continue to undersell at \$3.25.

Eucalyptol—In limited demand at 85c a pound on spot ranging to 90c as to seller.

Methyl Salicylate—Moving steadily at 35c a pound which is inside for both makers and resellers. Some makers at 40c in fifty pound cans.

Safrol—Easier here with sellers naming 60c which, however, might be shaded on firm business, 55c being reported.

Vanillin-Moving steadily at 55c an ounce, manufacturers' price. One or two lots might still be picked up here at 54c.

The evening course in Cosmetics, Toilet Preparations, and Perfumes established about two years ago at the College of Pharmacy, Columbia University, New York, by Prof. C. P. Wimmer, opened the second semester of the current year on Tuesday evening, Jan. 24. In addition to the regular instruction by Prof. Wimmer, leading members of the cosmetic industries will give practical lectures from time to time during the present term.

Premier Lloyd-George of England was recently a visitor to the Etablissements Antoine Chiris according to advices from Grasse, France. In the company of Colonel Harvey, American Ambassador to England, and Sir Rubert Horne, British Chancellor of the Exchequer, the Prime Minister was shown through the great works of this old essential oil house at Grasse.

Canadian imports of perfumery, cosmetics and toilet preparations during November, 1921, were as follows: From Britain, \$6,554; United States, \$42,372; other countries, \$25,194. Total \$74,120; as compared with imports from Britain, \$6,990; United States, \$399,333; other countries, \$57,236. Total, \$103,559, for November, 1920.

Compagnie Parento, Inc., New York essential oil importers, have moved their Chicago office to larger quarters at 410 South Michigan ave.

The Orbis Trading Co., of Brooklyn, has purchased land at Newark, N. J., and will build a plant for the manufacture of essential oils.

ITALIAN ESSENTIAL OIL PRICES HIGHER

(Special Correspondence to DRUG & CHEMICAL MARKETS)

Milan, Jan. 18.—Through a larger demand and rise in the foreign exchange, some essential prices advanced. The following are changes noted, per kilo:—Angelica root, lire 1500; Angelica seed, lire 1250; bitter orange, lire 142; sweet orange, lire 140; arnica flowers, lire 3000; absynth, lire 260; bergamot oil, 30-35 per cent of ethers, lire 230; Roman chamomile, lire 1800; cedar fruit, lire 75; cypress leaves, lire 105; juniper twigs, lire 50; Florence ris, lire 4000; laurel, lire 85; Italian lavender, lire 180-255; cedar wood, rectified, lire 47; Calabrian lemon, pressed by hand, 4 to 6 per cent citral, lire 34; lemon juice, machine pressed, lire 29; Reggio mandarine, lire 250; Florence melix, lire 125; Piedmontese peppermint, lire 165-175; neroli bigarade, lire 800; sweet neroli orange, lire 4250; bitter neroli orange, lire 9400; Italian rosemary, lire 35; mustard seed, lire 240.

Prices per Sicialian pound at Messina and Catania were as follows:—Messina lemon juice, lire 9.50; Messina mandarine, lire 75; Messina sweet orange, lire 50 to 52.

The following prices were noted for deterpenized essential oils:—Bitter orange, lire 3500; sweet orange, lire 3800; bergamot oil, lire 500; cedar, lire 600; lemongrass, lire 170; lemon, lire 350-375; mandarine, lire 7000; peppermint, lire 330.

The producers of oil peppermint were handicapped by high prices for raw material, many holders of mint herb claiming up to 3 lire per miriagramme, the same price as last year. Some distillers would not buy, fearing that the prices for the finished oil would be too low for profit. The essential oil obtained this year was very good, an analysis showing from 50 to 55 per cent of menthol. The yield from the herb was equal to three parts of essential oil for every thousand parts of peppermint herb. The higher yield of this year is explained through the fact that the peppermint plant was stunted, owing to the exceedingly light rainfall during the last six months of 1921. The distillers of Vigone, and Pancallieri produced thirty tons of peppermint oil, which is one-sixth more than last season.

Owing to the higher cost of living, the pickers and collectors of flowers, demanded 500 lire per ton. This prevented many essential oil producers from making purchases, preferring to let their plants remain idle. Others paid only 250 lire per ton. Owing to the partial shut-down the production of Italian lavender oil was low in comparison with previous years.

The importations of raw nitro-benzine reached 67 tons during the first six months of this year, against nothing during preceding years, owing to the use of this product for scenting soaps. The imports of alcoholic perfumes reached 78 tons during the first half of this year, against 204 tons in 1920, and 96 tons in 1919; such importations coming from France (71½ tons), from Germany (2 tons) and from other countries. The imports of non-alcoholic perfumes reached 139 tons, against 233 tons in 1920, and 120 tons in 1919; such perfumes coming from France (90 tons), from Germany (33 tons). The exports of alcoholic perfumes reached 55½ tons, against 65½ tons in 1920, and 12½ tons in 1919, whereas the exports of non-alcoholic perfumes reached 27 tons, against 63½ tons in 1920, and 18 tons in 1919.

Statistics for the first eight months of this year show total importations of 9,797,000,000 lire, and exportations of 4,872,000,000 lire, showing a difference of 4,925,000,000 lire against a difference of 10,295,000,000 lire in the corresponding period of 1920. This indicates very clearly the effects of the financial difficulties in Italy, and the necessity of reducing importations.

The Consuming Industries

INCREASE IN WAGES AND WORKING TIME SHOWS GAIN IN CONSUMING INDUSTRIES

Paints and Dyes Situation Indicates Better Business-Paper and Textile Groups Not So Promising-Leather and Rubber Industries Show Effect of Improved Demand

(Special to DRUG & CHEMICAL MARKETS)

Albany, Feb. 1.—Reports from 1,648 regresentative manufacturers show an increase of 59 cents in the average weekly earnings of New York State factory workers from November to December. The statement issued by the Industrial Commissioner, Henry D. Sayer, of the State Department of Labor, attributes this gain to an increase in working time, due partly to seasonal activity and partly to improved business conditions. Another element entering into the increase was the absence of holidays during the period covered by December reports, such as had occurred in previous months. Wage rate reductions were reported in some industries, and seasonal declines and the shutting down of factories for semiannual inventories caused a loss in earnings in a few

The chief gain in the earnings of workers in the chemicals, oils and paints group of industries occurred in the paints and dyes industry. Average earnings in the drugs and chemicals, and the oil products industries

made small gains.

Average earnings in the papermaking industry were lower in December partly because of the discontinuance of a bonus in one large plant. Earnings in the printing and book-making industry were increased substantially from November to December. This increase occurred, despite the fact that wage rate reductions were reported in many plants, because there was a resumption of full time work in some plants and over-time work in others to fulfill the requirements of the holiday trade. Both the paper box industry and the miscellaneous paper goods industry reported moderate increases.

The industries composing the textile group reported a minor gain in weekly earnings during the month. The chief gains were in the miscellaneous textile products industries, and in the wool manufactures industry. In the wool manufactures industry the gain occurred in the manufacture of carpets, and in the miscellaneous textile industries it was apparent in the oil cloth, linoleum and upholstery factories. The knit goods industry reported a small reduction which was due to the dull season. The gains in the clothing industries were almost entirely of a seasonal character. The largest occurred in the men's clothing industry. Another substantial increase was reported in the manufacture of men's shirts and furnishings. Notwithstanding the fact that the strike in the women's clothing industry was still in force during December this industry showed increased average earnings because some firms had begun full time operations.

Improved business conditions caused an increase in earnings in the leather industry for the first time since last July. Despite the fact that wage rates were reduced in many shoe factories, increased working time due to seasonal demand caused a gain in average earnings in the boot and shoe industry in December.

The rubber and gutta percha goods industry also showed the effects of an improved demand. The chief decrease in the group was that which occurred in the manufacture of miscellaneous leather novelties.

The fiftieth anniversary of the founding of the Silk Association of America will be celebrated at a dinner to be given next Saturday evening at the Hotel Astor. The dinner is an annual affair, but this year, as the fiftieth, it will be of special interest, and more than a thousand guests will attend.

The Oregon Growers' Co-Operative Association, of Salem, Ore., will operate canneries at eight different points in Oregon, They will pack a complete line of fruits, including frozen berries in barrels.

New Consuming Companies

Deering, Milliken & Co., New York, capital \$5,000,000. To make cloths. G. H. Milliken, H. A. Hatch, H. Maxwell. Attorney, F. J. Knorr, Albany.

Clason n Point Pharmacy, Bronx Borough, New York, capital M. Stern, S. Cohen. Attorney, B. Gottlieb, 1536 Minford

Broadway Drug Co., New York, capital \$25,000. R. H. Blum, E. Kaplan. Attorney, M. C. Weisman, 217 Broadway.

Standard Drug & Chemical Co., 24 South Charles st., Baltimore, Md., capital \$100,000. To manufacture chemicals. Arthur W. Smith and Jules D. Fritz.

Blue-Bird Perfumers, New York, capital \$100,000. Barbers and druggists supplies. A. H. T. Ranzhaf, R. C. Richter. Attorney, I. G. Pembleton, 130 W. 42nd st.

The San Silk Co, 140 Market st., Paterson, N. J., capital \$100,000. To manufacture silk.

Allstock Medicine Co., Huntington, W. Va., capital \$75,000. St. Lawrence Drug Co., 556 E. 76th st., Chicago, capital \$2,000. To manufacture drugs. M. N. Andalman, Louis J. Fisher, Jacob M. Arvey.

Nutria Food & Drug Corp., New York, capital \$200,000. A. R. Walsh, O. A. Rehbun, L. E. McMahon. Attorney, W. Bonynge, 1482 Broadway.

Metal Duro-Paint Co., New York, capital \$10,000. G. H. Mc-Millin, H. C. V. Christensen, E. L. Smith. Attorney, J. L. Rosenberg, 15 Park Row.

D. P. Cass Co., New York, capital \$100,000. Colors and chicals. E. Dreyfus, L. S. Hirsch, J. C. Guggenheimer. Attorno. Guggenheimer, Strasser & Meyer, 27 William st., New York. Colors and chem-

The Carbon Dioxide Plant Food Co., St. Augustine, Fla., capital \$4,500. To manufacture fertilizers. W. B. Guy, Robert Ransom, R. D. Crawley, St. Augustine.

Dunkirk Towel Mills, Dunkirk, N. Y., capital \$100,000, C. A. Carlson, J. B. and R. Hanco. Attorney, J. D. Curtiss, Jamestown,

Pheno-Sulpho Co., Dover, Del., capital \$500,000. Chemists and ruggists. Joseph Harris, Samuel Rosen, William Armstrong, New York. Representative, Trusten P. Causey, Milford, Del. Hirth-Kovarik Co., Dover, Del., capital \$30,000. Drugs and nedicines. Incorporated by the Corporation Guarantee and Trust Co.. Philadelphia.

Co., Philadelphia.

A. W. Mann, New York, capital \$10,000. Drug dealer. E. S. Mann, S. D. Mann. Attorney, G. H. Mann, 51 Chambers st. Fort Schuyler Drug Co., Utica, N. Y., capital \$25,000. E. V. Pellettieri, A. Histi, A. Bertolini. Attorneys, Lee, Dowlin & Pellettieri, A. Brennan, Utica.

Stolz Bros., Davis Co., Syracuse, N. Y., capital \$55,000. Drugs and medicines. J. Bondy, I. J. Davis, L. Stolz. Attorneys. McGowan & Stolz, Syracuse.

Farmers Veterlnary Service, Kingston, N. Y., capital \$10,000. G. P. and M. N. Hutchins, R. E. Smith. Attorney, H. Smith, 54 Wall St., New York.

Tono Chemical Co., Brooklyn, N. Y., capital \$20,000. Drug stores.
M. R. and S. W. Carlin, C. Werther. Attorney, A. Werther, 16
Court st., Brooklyn.

Leas & McVitty, Dover, Del., capital \$3,400,000. To manufacture leather. Incorporated by the Corporation Guarantee and Trust Co., Wilmington, N. J.

Western Cartridge Co., Dover, Del., capital \$2,000,000. To manufacture ammunition. Incorporated by the Corporation Trust Co. of America, Wilmington, Del.

Capital Increases-Acme Paper Co., Bogota, N. J., from \$75,000

Jacques Capsules, Plattsburg, N. Y., from \$100,000 to \$500,000.

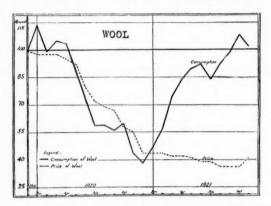
Designations—Match Corp. of America, Delaware, capital 10,000 shares preferred stock, \$100 each; 100,000 shares of common, no par value. Representative, J. L. Pinks, 233 Broadway, New York.

2

WOOL AND COTTON PRICES OVER 1920-21 COMPARED WITH HIGH LEVELS OF 1919

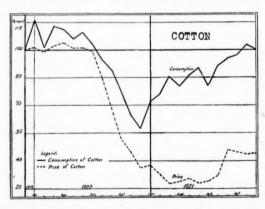
Showing the Relation of Prices to Consumption, and the Collapse of the Demand for Cotton and Wool Late in 1920—Break in Prices to About 40 Per Cent of the High Level of 1919

The accompanying charts showing the movements of wool and cotton prices as compared with consumption over the 1920 and 1921 periods as based on the high levels of late 1919, were published recently in the Bulletin of the Chemical National Bank, New York. The almost complete collapse of the demand for cot-



ton and wool, particularly during the last half of 1920, broke prices to about 40 per cent of the high 1919 closings.

Although 1920, saw a pick-up in the call for raw cotton and wool, values continued to slide downward over a greater part of the year as a result of the heavy



accumulations still pressing for sale. The economic reaction in the South coincident with the break in cotton is well known as well as the depression in wool circles in Australia and North America.

The International Paper Co., in a report to the New York Stock Exchange covering the eleven months ended Nov. 30, 1921, showed a net loss of \$6,574,310, after depreciation, interest and inventory adjustment. This compared with a profit of \$11,836,362 for the full year 1920, equal to \$52.07 a share on the common stock.

The P. H. Hanes Knitting Co., Winston-Salem, N. C., is adding to its products union suits for winter wear for women and children.

Trade Tips for Sellers

The Manhattan Yarn Dyeing & Bleaching Works, Inc., of Brooklyn, N. Y., started operation in their new plant last week.

The Owens Bottle Co., South Glassboro, N. J., is to continue operations at its works throughout the winter season, with full working force.

A quantity of dyed silks was destroyed in a fire which burned out the benzine shop of the United Piece Dye Works at Lodi, N. J.

J. O. Bell, treasurer of the Green River Manufacturing Co. at Tuxedo, seven miles from Hendersonville, N. C., will erect a \$500,000 yarn mill in Hendersonville.

Several small mills are to be established in Kingsport, Tenn., by the Kingsport Hosiery Mills, Inc., each mill to employ between 30 and 40 persons, according to C. D. Gott, who will be in charge of the operations at the various branch plants.

The Japanese raw silk bourse, which closed on Jan. 23, re-opened later in the week, according to cable messages received from Yokohama. The messages say that quotations are the same as those prevailing on Monday when the bourse closed.

The Eagle Knitting Mills, Leesport, Pa., the Burkey Underwear Co., Shoemakersville, and the Burks Underwear Co., Hamburg, have been consolidated under the name of Burks Underwear Co., with main office at Hamburg. The incorporators are William D., Edward B., Harry V. and Charles D. Burkey.

James C. Potter, of Pawtucket, R. I., president and director of the Potter & Johnston Machine Co., and John Johnston, treasurer and director are two of the incorporators in the articles of association filed by Potter Fine Spinners, Inc., with a capital of \$800,000, all of which is common stock. A large spinning plant will be built.

The Mitchell & Frank Knitting Mills, Inc., which was recently organized by Harris L. Mitchell and Herman L. Frank, formerly of the Monarch Knitting Mills, will start capacity production early next month in its new plant at Buffalo, N. Y. Machinery has been installed and the company is now starting to manufacture some sweaters as samples. The new firm is incorporated for \$50,000, and starts with 30 knitting machines.

The Wonora Knitting Mills, of 26 West Twenty-third st., filed schedules in bankruptcy on Jan. 25, listing liabilities of \$390,456 and assets of \$241,449, main items of which are accounts, \$134,710; stock, \$75,000; machinery and fixtures, \$25,000; cash, \$4,539. Principal creditors listed are Bloomingdale Brothers, \$107,849, secured; Chemical National Bank, \$60,000; Chatham and Phenix National Bank, \$20,000; Ess-Arr Knitting Mills, \$38,404; Famous Knitting Mills, \$16,580; Rottenberg Sons, \$9,571, and Princeton Knitting Mills, \$10,000.

The profit and loss account of the Ajax Rubber Co. for the first nine months of 1921, as filed with the New York Stock Exchange, shows a loss, before providing adjustment of inventory and commitment valuations, interest on borrowed moneys and Federal taxes, of \$2,446,642. Total loss for the period, after interest, adjustment of inventory and other charges, was \$2,966,445. The profit and loss surplus on Jan. 1, 1921, was \$1,615,480, so that the deficit of \$3,966,445 for the nine months caused a profit and loss deficit of \$2,350,964 as of Sept. 30, 1921.

DR

ter

Ti

scl

tin

to

RI

G

la

in

er

The Foreign Markets

Imports of Drugs, Chemicals, Dyestuffs, etc., Page 310

BUYING MORE BRISK IN LONDON

Agar Agar, Bismuth Salts, Platinum, and Rape Oil Higher—The Bichromates, Japanese Refined Camphor, Litharge, and Orris Root Lower—Market Firmer on Cream Tartar, Linseed Oil, Menthol and Turpentine

(Special Cable to DRUG & CHEMICAL MARKETS)

London, Feb. 1.—Buying is more brisk in the fine chemical market. The volume of inquiries is larger, and, as the demand increases, the prices of products that are in limited supply, are moving up. Agar agar, bismuth salts, platinum, and rape oil are higher.

The market is firmer on cream tartar, linseed oil, menthol, and turpentine.

Prices are easier for oxalic acid, phenazone, resorcin, and sodium benzoate.

Lower quotations are announced on the bichromates, Japanese refined camphor, litharge, and orris root.

London, Jan. 21. (By Mail)—During the week the better feeling has continued, and enquiries are more frequent. The Board of Trade returns for December are encouraging, exports being larger than in any month except October and November. The next Drug Auction has been fixed to take place on Thursday, Feb. 2.

Aloes, Cape, are in good supply, and are offered at lower prices, viz., first bright hard, 35s per cwt., good seconds at 30s and ordinary dull at 30s per cwt.

Camphor Refined—Fresh arrivals of Japanese in 2½ lb. slabs have caused a reduction in price, and from 4s 3d to 4s 6d per lb. is now quoted.

Castor Oil—English pressers have reduced their prices by £5 per ton quoting pharmaceutical at £55, first pressing at £50 and second pressing at £45 per ton net, barrels included, ex works Hull.

Cloves are rather easier, on the basis of 1s 6d per lb. for fair Zanzibar on spot.

Collodion is lower, at 5s 6d per lb., Methylated 1s 10d,

Flexile 6s per lb., Methylated 2s 2d.

Emetine is lower, at 3s 8d per gramme for pure alkaloid, 2s 2d for hydrobromide, and 2s 3d for hydrochloride.

Eucalyptus Oil is firmer at 1s 8d to 1s 9d per lb. on spot, and there is a good demand for it.

Geranium Oil—Good business has been done at advanced prices. Bourbon being quoted at 21s to 22s per lb. on spot.

Hyoscyamine is lower, the English makers now quoting 2s per gramme for pure alkaloid crystals, hydrobromide, hydrochloride and sulfate.

Jalap Resin is easier at 24s per lb. for English make, and 26s for powder.

Lemon Oil is firmer, at 2s 9d to 3s 3d per lb. on the spot, and 2s 11d to 3s for new crop c.i.f.

Menthol has had a slight set back and is now quoted 22s to 22s 6d per lb. for Kobayashi and/or Suzuki on the

Peppermint Oil—Japanese dementholized is dearer the present quotation being 5s to 5s 3d per lb.

Morphine Salts have been reduced by makers, who now quote pure crystals 11s 6d per oz., precip. 11s 3d, acetate 9s, bromide 11s 3d, hydrochloride 9s, crystals 9s 3d, meconate 11s 3d, sulfate 9s, crystals 9s 3d, and tartrate 11s 3d per oz. net, Morphine diacetyl is now 15s, diacetyl hydrochlor. 14s and ethyl hydrochlor. 16s per oz. net.

FOREIGN EXCHANGE Par	Current
Great Britain (pound sterling)\$4.88	6 \$4.260
France (franc)	
Italy (lira)	
Germany (mark) per hundred	.495
Czechoslovakia (crown) per hundred20.30	
Poland (mark) per hundred23.80	
Austria (crown) per hundred20.30	
Japan (yen)	
Spain (peseta)	
Holland (guilder)	
Belgium (tranc)	8 .080
Norway (crown)	
Switzerland (franc)	
Sweden (crown)	8 .253
Denmark (crown)	
Argentina (peso)	
Brazil (milreis)	
China (Silver dollar-Hongkong)	
(Tael-Shanghai, silver)	
(Tael-Peking, silver)	
Russia—(100 rubles)	

CRUDE DRUGS HIGHER IN ITALY

(Special Correspondence to DRUG & CHEMICAL MARKETS)

Turin, Italy, Jan. 18.—Owing to a greater demand the prices of some crude drugs advanced. Only a few prices declined. The following quotations are noted, per 100 kilos: Bari anise, lire 650 to 675; Spanish anise, lire 650 to 675; Levant armeline, lire 450 to 480; Ceylon cinnamon, lire 2100 to 2600; Martinique cassia, lire 780 to 820; chamomile flowers, lire 900 to 1000; linden flowers, lire 650 to 700; Zanzibar cloves, lire 2300 to 2400; Geraci manna, lire 1900 to 2000; nutmeg, lire 2200 to 2400; liquorice roots, lire 475 to 500; Bari mustard, lire 270 to 290; Sicily mustard, lire 230 to 240; Calcutta tamarinds, lire 230 to 250; Bourbon vanilla, lire 14,000 to 15,000; Aquila saffron, lire 775 to 800.

Production by the Consolidated Mining & Smelting Co., of Vancouver, British Columbia, during 1921, showed a substantial increase over that of the previous year, particularly in lead and zinc. In the matter of value, however, decreases are reported in silver, copper and zinc and increases in gold and lead. The zinc output in 1921 was 53,131,170 lbs. valued at \$2,551,895, compared with 36,995,394 lbs. valued at \$2,810,890, in 1920. The lead output was 57,651,110 lbs. in 1921, valued at \$1,960,999 compared with 26,474,652 lbs. in 1920, valued at \$1,780,024.

Foreign Trade Opportunities

The Department of Commerce, Washington, D. C., has received the following inquiries for drugs, chemicals and accessories. Reserved addresses may be obtained from the Bureau and its district and cooperative offices. Request for each opportunity should be on a separate sheet and state opportunity number. The Bureau does not furnish credit ratings or assume responsibility as to the standing of foreign inquirers; the usual precautions should be taken in all cases.

656—Lowest wholesale prices are requested by a firm in India for the purchase of 5 to 10 tons of the highest quality, chemically pure calcium carbide. Quotations should be given c.i.f. port of India. Payment to be made against delivery. References.

657—A manufacturing company in England desires to purchase bicarbonate of soda and bichromate of potash to be used in connection with the dyeing and finishing of textile fabrics. Quotations should be given c.i.f. Liverpool or Manchester. Terms: Cash against documents. References.

665—The purchase is desired by a manufacturing firm in Mexico of one carload of paraffin wax and one carload of tallow. Quotations should be given f.o.b. El Paso, Tex. References.

GERMAN TANNING EXTRACT TRADE NOW CONTROLLED BY BRITISH CO.

Majority Share Capital of Two Largest Producers
Acquired By the Forestal Land, Timber & Railway
Co.—Production Costs of German Companies Too
High to Compete With Foreign Stocks—Synthetic
Tanning Materials Not a Success

(Special Correspondence to Drug & Chemical Markets)
Berlin, Germany, Jan. 20.—The German tanning material industry is now under the control of a British company. It will be recalled that the Forestal Land, Timber & Railway Co. gained a majority interest in the Gerbstoff- und Farbwerke H. Renner Aktien Gesell-schaft, at Hamburg, some time ago. In the meantime the British enterprise has been busy extending its hold on the German industry and is just reported to have acquired the majority share capital of the Rheinische Gerbstoff- und Farbholz Extraktfabrik

Gebr. Müller at Benrath. Both works represent the

largest producers in this line.

The British concern not only controls the extract industry in the producing countries, but also the sources of raw materials for extract production, formerly in the hands of the Renner company. Several years prior to the war, a German enterprise was established under the name of Deutsch-Koloniale Farb- und Gerbstoffgesellschaft, with a view to securing the independence of the German industry but the unexpected result of the war meant the end of that colonial venture.

German imports and exports of dyewoods, extracts of dyewoods and other vegetal dye matter, and tanning material (barks, etc.) during 1920 and 1921 are shown in the appended tabulation:

Month				Im	ports
				Kilos	Marks
JanD	ec.	1920	 	.21,449,700	No record
May.	1921			. 4,374,200	15,643,000
June,				. 5,444,000	17,000,000
July.				. 3,642,700	11,417,000
Aug.,				. 6,585,500	20,722,000
Sept.,				. 5,640,500	23,202,000
Oct.,				.10,241,400	51,021,000
				Exp	ports

		Kilos	Marks
JanDec	1920	2,999,000	6,931,000
			436,000
June, 1921	l	451,800	1,174,000
July, 1921		799,300	1,032,000
Aug., 1921	l	585,200	1,028,000
Sept., 1921	l	178,600	601,000
Oct., 1921		113,600	673,000

The exigencies of the war forced the German industry to husband available stocks and great efforts were being made to develop a domestic vegetal tanning extract industry. The results were not very encouraging and the enormous rise in production costs, rendered the home products well nigh non-competitive with foreign stocks. Far more satisfactory results were reached in the way of providing substitutes, i, e., synthetic tanning materials, the production of which enabled the industry to relieve the scarcity of foreign supplies to a certain extent. The paper industry also had a share in providing substitutes, as the lye produced from cellulose waste and other byproducts were found to be available for tanning material production. It is openly admitted, however, that all these substitutes and synthetic products had to be mixed with natural vegetal tanning materials if the

leather produced was to answer all requirements in the way of quality.

The penetration of British capital into the German tanning material market is viewed with much concern by the domestic leather industry, which is importing two-thirds of its requirements in raw hides and skins from South America and India.

AMERICAN-SWEDISH ENTERPRISE IN GERMANY

(Special Correspondence to DRUG & CHEMICAL MARKETS)

Berlin, Jan. 18.—Under the name of Interocean Taube Co., G. m. b. H. (Ltd.) a new company has just been incorporated at Berlin with a share capital of \$1,000-000 marks. The founders are a Swedish concern, the Taube Co., recently incorporated with a capital of 1,000,000 kronen, and an American enterprise, the Interocean Holding Co., said to be operating with a capital stock of \$250,000, which is shortly to be increased. The majority interest is said to be German-Americans.

The object of the enterprise will be trading with Germany in general, and the purchase of machinery and chemicals. A novel feature of their operations will be the elimination of the German merchant, as it is intended to buy from the works only. The Interocean Taube Co. is stated to have plans for operating factories in Germany, it being intended to exploit licenses for electrical supplies for the far east. The principal shareholders are a Chicago color manufacturer, John G. Kleer, Dr. Morris Buchter, Robert Hoffman, and a number of Congressmen, including a Mr. Elliott.

The only congressman named Elliott is Richard N. Elliott of Indiana, a Republican. He is a lawyer, according to the Congressional Directory, and served in the 65th, 66th, and 67th Congress [Editor].

CHEMICAL PLANT PUT ON THE FILM

(Special Correspondence to DRUG & CHEMICAL MARKETS)

Berlin, Jan. 18.—In their energetic attempts to recover their former position in the world's markets the Germans are using the film. The chemical works of E. Merck, at Darmstadt, have produced a picture which was recently shown to select audiences composed of Government officials, scientists, representatives of industry and trade, and the press. It is a five-reeler, showing in the first part the historical development of the enterprise (which originated in the 17th century) the present plants, welfare institutions, workmen's dwellings, etc. In the second part are shown the places of scientific study and research, as laboratories, libraries, etc., where about 100 scientists are employed. This part also contains a demonstration of the production of alkaloids from crude drugs and the synthetic production of alkaloid derivatives.

The third reel is primarily intended to visualize the production of "veronal" and other organic and inorganic products, as well as the production methods employed in the manufacture of tablets, pills, and ampoules. The fourth reel shows the bacteriological laboratories, microbe breeding plants, the vivisection of animals, and the experimental stations, while the last reel shows the testing, packing, and shipping departments.

The Esthonian government has just entered a contract with a big German electrical enterprise, the Siemens & Schuckert works, for delivery of mill equipment for the Esthonian color industry. The order comprises generators, motors, and other electrical supplies and is valued at 3,500,000 marks.

Prices Current of Fine and Heavy Chemicals, Drugs, Essential Oils, Dyestuffs and Oils

EXPLANATION

Prices current quoted herein are spot New York, unless otherwise indicated, for goods in large quantities in original packages of the customary trading unit of weight or measure, Re-sale prices are quoted when secondhands are a factor in the market.

The price range (two sets of figures, e. g., .16-.19) indicates either prices for different quantity orders, or else that different manufacturers or importers quote different prices. All price ranges are inclusive.

All quotations are made on the basis of avoirdupois pounds and ounces or American gallons. For the ready reference of exporters and foreign buyers the following tables of equivalents are published:

WEIGHTS AND MEASURES

i	Imperial Gallon (Brit.)-1.20 Amer. Gallons
1	American Gallon833 Imperial Gallon
1	American Gallon-3.79 liters
1	Liter264 American Gallon
1	American Gallon (H2O) weighs 8.35 pounds
1	Pound (Avoirdupois) weighs .454 Kilogram
ĩ	Kilogram weighs 2.20 pounds (Avoirdupois)

Acids

				-
Acetic, See Heavy Chemicals				4
Acetyl-salicylictb.	.73	, -	.80	4
Acetyl-salicylic	.55	-	-65	
Boric cryst., bblstb.		3/4-	.14	1
Boric cryst., bbls	.12	34-	.14	1
Butvric Tech., 98 p.c	-	_	.14 .90 4.50	1
Camphoric	4.27	_	4.50	1
Carbolic cryst., U.S.P., drs.tb.	.12	=	.16	1
1-lb. bottle	_	_	.27	١
5.1h hottle				1
50 to 110-lb. tlns	_	_	.19	1
Liquid, U.S.P., 1 lb. botfb.		Ξ	.26	1
Crude, 25 p.cgal.				ı
Chromic, 98 p.ctb.	_		.45	1
Chrysophanicth.	1.70	-	1.90	ı
Chrysophanic	cals			ı
Citric, crystals, bbls	-	=	.47	ı
Powderedtb.	_	-	.48	1
Imported, kegs	.43	-	.44	I
Cresylic, 95-100 p.c., See Coal-to Formic, 75 p.c., tech	AT C	rude	8	ı
Formic, 75 p.c., techtb.	.15	_	.16	ı
Gallic, U.S.P., bulk				ı
Glycerophosphoric, 25 p.c ib.	1.65	-	1.75	ı
Hydrobromie, 40 p.c., puretb.		_	.40	ł
Hydrochloric, C.P., carboystb.	.07	-	.08	I
Hydriodic, sp. g. 1.150oz.		_	.20	ı
Hydroffuoric, see Heavy Chemic	CAIS	_	1 70	ı
Hypophosphorous, 50 p.c	1.03	_	.37	ı
U.S.P., 10 p.etb.				ı
Lactic, U.S.P., VIIItb.	.33	-	.00	ı
U.S.P., IXtb. Molybdic, C.Ptb.	.00	Ξ	./0	ı
Molybdic, C.P.		_	0.00	ı
Muriatic, see Heavy Chemicals	.09		.10	ı
Nitric, C.P	.00	_	23	ı
Outlin Can Hanny Chamicals	.50			ŀ
Oxalic, See Heavy Chemicals Picric, kegs, see Intermediates				
Phosphoric, 85-88p.c., syr.U.S.Ptb.	.16	=	.19	ı
so took	.10	_	.11	ı
Pyrogallic, resublimated fb.	_	-	1.75	ı
Pyrogallic, resublimatedtb. Crystals, bottlestb. Salicylic, U.S.Ptb.	1.20	-	1.30	Г
Salicylic, U.S.P	.24	_	.26	1
	.23		.24	
Sulfuric, C.Pb.	JU7	=	.08	1
Sulfurous (6-7 p.c.)tb.	.60	_	.75	1
Tannic, U.S.P	.00	_	.30	
Tartaric, Crystals, U.S.F	_	=	.30	
Powdered, U.S.Ptb. Imported, U.S.P., Crysttb.	.25		.26	
Powdered	.25	_	.26	
Towacies				

Fine Chemicals

Acetanilid, C.P., bbl. blktb. Acetone		
Acetone	.29	33
	.12	1/2 .18
Acetphenetidin	-	- 1.65
Aconitine, Alkalold, crystoz. Amorphous	_	-23.00 -16.00
	_	-10.00
Albumen, Egg, ediblefb. Alcohol, 190 proof, U.S.Pgal.	_	75
Alcohol, 190 proof, U.S.P. gal.	_	-4.80
Cologne Spirit, 190 proof.gal.	_	- 4.85
For Export IISP gal	.40	- 4.75 45
Adeps Lanae, See Lanolin Albumen, Egg, edibletb. Alcohol, 190 proof, U.S.P. gal. Cologne Spirit, 190 proof, gal. Second Hands, U.S.P. gas For Export, U.S.P. gal. Wood ref., 95 p.cgal	.60	62
		68
Pure	.75	85
Acetone free,gal. Second Hands, 95-97 p.c.gal. Denatured Completegal.	.80	85 62
Second Hands, 95-97 p.e.gal. Denatured Completegal.		02
Second Handsgal.	.35	38
D 1	.234	428
Iso-propyl, bblsgal. Aloin, U.S.P., powdtb. Amidopyrinetb.	-	- 2.50
Aloin, U.S.P., powdtb. Amidopyrinetb.	.80 4.25	85 - 4.40
Aloin, U.S.P., powd	.37	- 4.40
Ammonium, Acetate, crystlb. Benzoate, cryst., U.S.Plb. Bichromate, C. Plb. Bromide, gran., bulklb. Importedlb. Carb. Dom. IIS P. kegs. lb.	.85	90
Bichromate, C. Ptb.	.65	70
Bromide, gran., bulktb.	-	28
Imported b. Carb. Dom., U.S.P., kegs. lb. Chloride, U.S.P. b. Hypophosphite b.	.16	18 14
Chloride, U.S.P.	19	20
Hypophosphite	1.35	-1.40
	.75	-2.50
Iodide tb. Nitrate, C. P. tb. Oxalate, Pure tb. Phosphate (Dibasic) tb.	-	- 4.60
Oxalate, Pure	.45	40 55
Phosphate (Dibasic)fb.	.40	42
Monobasictb. Salicylate, U.S.Ptb.	.18	20
Monoposate	.60	— .65
Water, (See Heavy Chemicals)	1.95	- 2.40
Antimony Chlor. (Sol. butter of	1.93	- 2.40
Antimony)fb.	-	10
Needle Powdertb.	.041/2	05
Antipyrine, bulktb.	1.65	-1.75
Apomorphine Hydrochlor. 1/8.oz. 1	2.00	-12.05
Antipyrine, bulk	4.00	-15.00 07
Argols, red b. Argols, red b. Arsenic red, See Heavy Chemical White, See Heavy Chemical See Heavy Chemical Arsenous Iodide, U.S.P b. Aspirin b. Mropine, Alk. U.S.P., 1-ez.v.oz. Sulfate, U.S.P., 1-oz. v.oz. Sarbital oz.		w
White, See Heavy Chemicals	•	
Arsenous Iodide, U.S.Ptb.	-	- 5.50
Aspirinlb.	.75 .	80
Sulfate IIS P. 1-oz W. oz.	9.00 · 5.25 ·	-12.00 - 5.40
Barbital		- 3.40
Barium Carb. prec., puretb.		- 1.25
		- 1.25 25
Dioxide	.17	25 21
Iodidetb.	-	25 21 - 5.38
Iodideb. Nitrateb.	.17 -	25 21
lodide	.07 -	25 21 - 5.38 10
lodide	.07 -	25 21 - 5.38 10
lodide	.07 -	25 21 - 5.38 10
lodide	.07 -	25 21 - 5.38 10
Jodde tb. Nitrate tb. say Rum Denatured Salicy. Acidgal. Denatured, quinine gal. enzaldehyde (see Aromatic Chen tenzonaphthol tb. terberine Hidchl tb.	.07 -	25 21 - 5.38 10 - 3.50 - 8.75) - 2.75 - 22.00 - 25.00
Jodde tb. Nitrate tb. say Rum Denatured Salicy. Acidgal. Denatured, quinine gal. enzaldehyde (see Aromatic Chen tenzonaphthol tb. terberine Hidchl tb.	.07 -	25 21 - 5.38 10 - 3.50 - 8.75) - 2.78 - 22.00 - 25.00 - 25.00
Jodde tb. Nitrate tb. say Rum Denatured Salicy. Acidgal. Denatured, quinine gal. enzaldehyde (see Aromatic Chen tenzonaphthol tb. terberine Hidchl tb.	.07 -	25 21 - 5.38 10 - 3.50 - 8.75) - 2.75 - 22.00 - 25.00 - 25.00 - 210
Jodde b. Nitrate b. Nitrate b. Asy Rum Denatured Salicy. Acid. gal. Denatured, quinine gal. Benzaldehyde (see Aromatic Cheniemonaphthol berberine Hdchl b. Acid Sulfate b. Xeutral sulfate b. Zismuth Metallic b.	.07 -	25 21 - 5.38 10 - 3.50 - 3.75) - 2.75 - 22.00 - 25.00 - 25.00 - 25.00 - 25.00 - 25.00 - 25.00 - 25.00
Jodde b. Nitrate b. Nitrate b. Asy Rum Denatured Salicy. Acid. gal. Denatured, quinine gal. Benzaldehyde (see Aromatic Cheniemonaphthol berberine Hdchl b. Acid Sulfate b. Xeutral sulfate b. Zismuth Metallic b.	.07 -	25 21 - 5.38 10 - 3.50 - 3.75) - 2.75 - 22.00 - 25.00 -
Jodde b. Nitrate b. Nitrate b. Asy Rum Denatured Salicy. Acid. gal. Denatured, quinine gal. Benzaldehyde (see Aromatic Cheniemonaphthol berberine Hdchl b. Acid Sulfate b. Xeutral sulfate b. Zismuth Metallic b.	.07 -	25 21 - 5.38 10 - 3.50 - 3.75) - 2.78 - 22.00 - 25.00 - 25.00 - 2.10 - 5.20 - 2.30 - 2.50
Jodde b. Nitrate b. Nitrate b. Say Rum Denatured Salicy, Acid. gal. Denatured quinine gal. Benzaldehyde (see Aromatic Chemiensonaphthol b. Berberine Hdchl. b. Acid Sulfate b. Neutral sulfate b. Salicy B. Citrate, U.S.P. b. Citrate, U.S.P. b. Salicylate b. Salicylate b. Salicylate b. Subbenzoate b.	.07 -	25 21 - 5.38 10 - 3.50 - 3.78) - 2.78 - 22.00 - 25.00 -
Jodde b. Nitrate b. Nitrate b. Say Rum Denatured Salicy, Acid. gal. Denatured quinine gal. Benzaldehyde (see Aromatic Chemiensonaphthol b. Berberine Hdchl. b. Acid Sulfate b. Neutral sulfate b. Salicy B. Citrate, U.S.P. b. Citrate, U.S.P. b. Salicylate b. Salicylate b. Salicylate b. Subbenzoate b.	.07 -	25 21 - 5.38 - 10 - 3.50 - 3.75) - 2.76 - 22.00 - 25.00 - 25.00 - 2.10 - 5.20 - 2.30 - 2.50 - 1.55 - 2.75 - 2.75
Jodde b. Nitrate b. Nitrate b. Say Rum Denatured Salicy. Acid gal. Denatured quinine gal. Senzaldehyde (see Aromatic Chen senzonaphthol b. Acid Sulfate b. Neutral sulfate b. Sweutral sulfate b. Sismuth Metallic b. Citrate, U.S.P. Doxychloride b. Salicylate b. Subbenzoate b. Subbenzoate b. Suberpoint b. Subcarbonate, U.S.P. Der Year Dispraying b.	.07 -	25 21 - 5.38 10 - 3.50 - 3.75) - 2.76 - 22.00 - 25.00 -
Jodide b. Nitrate b. Nitrate b. Say Rum Denatured Salicy. Acid. gal. Denatured quinine gal. Senzaldehyde (see Aromatic Chemonaphthol b. Serberine Hdchl. b. Acid Sulfate b. Neutral sulfate b. Sismuth Metallic b. Ammon. Citrate, U.S.P. b. Citrate, U.S.P. b. Oxychloride b. Sulbedenzoate b. Subcarbonate, U.S.P. b. For X-ray Diagnosis. b. Subgallate b.	.07 -	25 21 - 5.38 - 10 - 3.50 - 3.78) - 2.78 - 22.00 - 25.00 - 25.00 - 2.00 - 2.30 - 2.30 - 2.30 - 2.75 - 2.16 - 2.75 - 2.16 - 2.00
Jodide b. Nitrate b. Nitrate b. Say Rum Denatured Salicy. Acid. gal. Denatured quinine gal. Senzaldehyde (see Aromatic Chemonaphthol b. Serberine Hdchl. b. Acid Sulfate b. Neutral sulfate b. Sismuth Metallic b. Ammon. Citrate, U.S.P. b. Citrate, U.S.P. b. Oxychloride b. Subbenzoate b. Subcarbonate, U.S.P. b. For X-ray Diagnosis. b. Subgallate b. Subolidide b. Subonitrate b. Subonitrate b. Subonitrate b. Subonitrate b. Subonitrate b. Subonitrate b.	.07 -	25 21 23 38 10 3.50 2.75 22.00 25.00 25.00 2.10 2.30 2.30 2.30 2.30 2.65 2.65 2.00 2.65 2.00 2.50
Jodide b. Nitrate b. Nitrate b. Say Rum Denatured Salicy, Acid. gal. Jenatured, quinine gal. Senzaldehyde (see Aromatic Chemiensonaphtho) b. Jerberine Hdchl. b. Acid Sulfate b. Zisimuth Metallic b. Ammon. Citrate, U.S.P. b. Citrate, U.S.P. b. Citrate, U.S.P. b. Salicylate b. Salicylate b. Subbenzoate b. Subbenzoate b. Subcarbonate, U.S.P. b. Subgallate b. Subolate b. Subgallate b. Subgallate b. Subgallate b. Subjoidide b. Subicitrate b. Subolatide b. Subicitrate b. Subgallate b. Subjoidide b. Subolate b. Second Handa b.	.07 -	25 21 - 5.38 - 10 - 3.50 - 3.75 - 2.75 - 22.00 - 25.00 - 2.10 - 5.20 - 2.30 - 2.75 - 2.10 - 5.20 - 2.75 - 2.10 - 2.60 - 2.75 - 2.10 - 3.95 - 3.95
Jodide b. Nitrate b. Nitrate b. Say Rum Denatured Salicy, Acid gal. Denatured quinine gal. Benzaldehyde (see Aromatic Chemiensonaphthol b. Serberine Hdohl b. Acid Sulfate b. Z Neutral sulfate b. Z Neutral sulfate b. Z Sismuth Metallic b. Citrate, U.S.P. b. Citrate, U.S.P. b. Salicylate b. Subbenzoate b. Subbenzoate b. Subbenzoate b. Subgallate b. Suboidide b. Second Hands b. Subsubslate b. Subsubslicylate b. Subsubslicylate b. Subsubslicylate b.	.07 -	25 21 5.38 10 2.75 22.00 25
Jodide b. Nitrate b. Nitrate b. Say Rum Denatured Salicy, Acid gal. Denatured quinine gal. Benzaldehyde (see Aromatic Chemiensonaphthol b. Serberine Hdohl b. Acid Sulfate b. Z Neutral sulfate b. Z Neutral sulfate b. Z Sismuth Metallic b. Citrate, U.S.P. b. Citrate, U.S.P. b. Salicylate b. Subbenzoate b. Subbenzoate b. Subbenzoate b. Subgallate b. Suboidide b. Second Hands b. Subsubslate b. Subsubslicylate b. Subsubslicylate b. Subsubslicylate b.	.07 -0.07 -0.00 -0	25 25 238 10 3.50 2.76 2.70 2.500
Jodide b. Nitrate b. Nitrate b. Say Rum Denatured Salicy, Acid gal. Denatured quinine gal. Benzaldehyde (see Aromatic Chemiensonaphthol b. Serberine Hdohl b. Acid Sulfate b. Z Neutral sulfate b. Z Neutral sulfate b. Z Sismuth Metallic b. Citrate, U.S.P. b. Citrate, U.S.P. b. Salicylate b. Subbenzoate b. Subbenzoate b. Subbenzoate b. Subgallate b. Suboidide b. Second Hands b. Subsubslate b. Subsubslicylate b. Subsubslicylate b. Subsubslicylate b.	.0707	2521
Jodide b. Nitrate b. Nitrate b. Say Rum Denatured Salicy, Acid gal. Denatured quinine gal. Benzaldehyde (see Aromatic Chemiensonaphthol b. Serberine Hdohl b. Acid Sulfate b. Z Neutral sulfate b. Z Neutral sulfate b. Z Sismuth Metallic b. Citrate, U.S.P. b. Citrate, U.S.P. b. Salicylate b. Subbenzoate b. Subbenzoate b. Subbenzoate b. Subgallate b. Suboidide b. Second Hands b. Subsubslate b. Subsubslicylate b. Subsubslicylate b. Subsubslicylate b.	.07 -0.07 -0.00 -0	25 25 38 10 - 3.50 - 3.75 - 2.76 - 22.00 - 25.00 - 25.00 - 25.00 - 25.00 - 25.00 - 25.00 - 25.00 - 25.00 - 2.10 - 2.30 - 2.50 - 2.10 - 2.50 - 2.00 - 3.95 - 2.00 - 3.95 - 2.00 - 3.95 - 2.00 - 3.95 - 2.00 - 3.95 -
Jodide b. Nitrate b. Nitrate b. Say Rum Denatured Salicy. Acid. gal. Denatured quinine gal. Denatured see Aromatic Chei Denatured see Aromatic Chei Denatured the b. Denatured the b	.07 -	25212125
Jodide b. Nitrate b. Nitrate b. Say Rum Denatured Salicy. Acid. gal. Denatured quinine gal. Denatured see Aromatic Chei Denatured see Aromatic Chei Denatured the b. Denatured the b	.07 -	25 25 38 10 - 3.50 - 3.75 - 2.76 - 22.00 - 25.00 - 25.00 - 25.00 - 25.00 - 25.00 - 25.00 - 25.00 - 25.00 - 2.10 - 2.30 - 2.50 - 2.10 - 2.50 - 2.00 - 3.95 - 2.00 - 3.95 - 2.00 - 3.95 - 2.00 - 3.95 - 2.00 - 3.95 -
Jodide b. Nitrate b. Nitrate b. Say Rum Denatured Salicy. Acid. gal. Denatured quinine gal. Denatured see Aromatic Chei Denatured see Aromatic Chei Denatured the b. Denatured the b	.07	2521025,00
Indide b. Nitrate b. Nitrate b. Say Rum Denatured Salicy Acid gal Denatured quinine gal senzaldehyde (see Aromatic Cheimonaphthol b. Jerberine Hdchil b. Acid Sulfate b. Neutral sulfate b. Ammon. Citrate, U.S.P. b. Citrate, U.S.P. b. Citrate, U.S.P. b. Salicylate b. Subbenzoate b. Subbenzoate b. Subbenzoate b. Subbenzoate b. Subsalicylate b. Tannate b. Orax, in bbls b. U.S.P. Kegs b. Tucine Sulfate (works) b. Tomoform Potass Brom, etc. Admium Bromide, crystals. b.	.07 -	25212125212125
Jodide b. Nitrate b. Nitrate b. Say Rum Denatured Salicy. Acid. gal. Denatured quinine gal. Denatured for the gal. Denatured see Aromatic Chem Denatured to the gal. Denatu	.07	- 25 - 31 - 31 - 31 - 31 - 31 - 31 - 31 - 3
Jodide b. Nitrate b. Nitrate b. Nitrate b. Say Rum Denatured Salicy Acid. gal. Denatured quinine gal. senzaldehyde (see Aromatic Chemenonaphthol b. Jerberine Hdchil. b. Acid Sulfate b. Neutral sulfate b. Jerberine Hdchil. b. Ammon. Citrate, U.S.P. b. Citrate, U.S.P. b. Oxychloride b. Subbersonate b. Subbersonate b. Subbersonate b. Subbarbonate, U.S.P. b. For X-ray Diagnosis. b. Subbarbonate b. Suboarbonate b. Jeromoform b. Toromice Sulfate core Toromine purified (works) b. Toromice purified (works) b. Toromice purified (works) b. Toromice purified (works) b. Toromice purified (works) b. Metal sticks b.	.07	- 25 - 31 - 3.50 - 3.75 - 3.50 - 2.75 - 2.50
Indide b. Nitrate b. Nitrate b. Say Rum Denatured Salicy, Acid. gal. Denatured quinine gal. Senzaldehyde (see Aromatic Chemensonaphtho) b. Serberine Hdchi. b. Acid Sulfate b. Z. Sismuth Metallic b. Ammon, Citrate, U.S.P. b. Citrate, U.S.P. b. Citrate, U.S.P. b. Salicylate b. Salicylate b. Subbenzoate b. Subbenzoate b. Subbenzoate b. Subscarbonate, U.S.P. b. For X-ray Diagnosis. b. Subsalicylate b. Tannate b. Orax, in bbls. b. Or	.07	- ,25 - ,21 - ,21 - ,21 - ,21 - ,21 - ,21 - ,21 - ,21 - ,21 - ,2 - ,2
Jodide b. Nitrate b. Nitrate b. Nitrate b. Say Rum Denatured Salicy Acid. gal. Denatured quinine gal. enzaldehyde (see Aromatic Chemenonaphthol b. Jerberine Hdchil. b. Acid Sulfate b. Neutral sulfate b. Sulsimuth Metallic b. Ammon. Citrate, U.S.P. b. Citrate, U.S.P. b. Oxychloride b. Subbarbonate, U.S.P. b. Subbarbonate, U.S.P. b. For X-ray Diagnosis. b. Subgallate b. Suboarbonate b. Subnitrate b. Joran, in blis. b. Tucine Sulfate cor. romine, purified (works) b. romoform b. romides, See Potass. Brom. etc. admium Bromide, crystals. b. Metal sticks b. Resale b. Hydrochloride b.	.07	- 25.38 - 3.50 - 3.78 - 2.73 - 2.25.00 - 2.25.00 - 2.25.00 - 2.25.00 - 2.25.00 - 2.25.00 - 2.20 - 3.25 - 3.25 - 3.25 - 3.37 - 3.37 - 3.37 - 3.87 - 3.88 - 3.80 - 3
Jodide b. Nitrate b. Nitrate b. Nitrate b. Say Rum Denatured Salicy Acid. gal. Denatured quinine gal. enzaldehyde (see Aromatic Chemenonaphtho) b. lerberine Hdchi. b. Acid Sulfate b. Neutral sulfate b. Sulfishe b. Ammon. Citrate, U.S.P. b. Citrate, U.S.P. b. Citrate, U.S.P. b. Daychloride b. Subberbonate, U.S.P. b. Subcarbonate, U.S.P. b. Subcarbonate, U.S.P. b. Subsalicylate b. Subnitrate b	.07	- ,25 - ,21 - ,21 - ,21 - ,21 - ,21 - ,21 - ,21 - ,21 - ,21 - ,2 - ,2

Items are classified into divisions based upon industrial and trade use and, within these divisions, are arranged alphabetically. The order follows roughly the order of the market reports in the text pages and the running heads at the top of the page serve as a ready index.

Fine Chemicals - medicinal, photographic, CP reagent acids and chemi-

cals, except synthetic aromatics.

Heavy Chemicals — industrial and metallurgical acids and chemicals, except metals, dyestuffs, tanning materials and fertilizers.

Coal-Tar Products-crudes and in-

Oils-the fatty oils of animal, fish, and vegetable origin.

Crude Drugs-the natural botanical products sold through the drug trade, further subdivided according to class.

Essential Oils - include the oleoresins and are followed by the synthetic aromatic chemicals.

Salicylate, U.S.P	
Water, (See Heavy Chemicals)	
Amuel Accepted bulls described	Calcium Glycerophosphatetb 1.75
Amyl Acetate, bulk, drums.gal. 1.95 - 2.40	Hypophosphite
Antimony Chlor. (Sol. butter of	
Antimony)tb10	Iodidetb 3.95
Needle Powder	Phosphate, Precip
	Monobasic
Antipyrine, bulk	Sulfocarbolate
Apomorphine Hydrochlor, 1/2.02. 12.00 -12.05	
Arecoline Hydrobromideoz. 14.00 -15.00	Camphor, Am. ref'd bbls.blk.tb92
Arreconne riyurobromideoz. 14.00 —15.00	16's in 1-lb, cartontb97
Argols, redtb07	24'- 1- 1 11
Arsenic red, See Heavy Chemicals	24's in 1-lb. carton
White, See Heavy Chemicals	32's in 1-lb. carton
Arsenous Iodide, U.S.Ptb 5.50	Japan refined, 2½ lb. slabs.tb9092
	Tablets (as to size)fb9597
Aspirin	
Atropine, Alk. U.S.P., 1-ez.v.oz. 9.00 -12.00	Chinese, crude
Sulfate, U.S.P., 1-oz. voz. 5.25 - 5.40	Refinedtb90 — .91
Barbital	Monobromated, bulkfb. 1.70 - 1.80
	Caramelgal6670
	Carmine, No. 40
Dioxidetb1721	
Iodidetb 5.38	Casein, Edible
Nitratetb0710	Technical
Bay Rum	Castor Oil, AA bbls
Denatured Salicy. Acidgal. 3.22 - 3.50	Cerium Oxalate
Denatured, quininegal. 3.60 - 3.75	Chalk, Precip., light
Benzaldehyde (see Aromatic Chemicals)	Heavy
Benzonaphthol	Droptb0314
Berberine Hdchl	
A-14 C-16-4-	Charcoal, Powdtb0406
Acid Sulfate	Willow, Powdtb0607
Neutral sulfate	Bone Black, Powd
Bismuth Metallictb 2.10	
Ammon. Citrate, U.S.Pfb 5.20	Chloral Hydrate, U.S.P., crys-
Citrate, U.S.Ptb 2.30	tals, 25 lb. jars, 100 lb. lotslb86
Oxychloride	Chloroform, U.S.P
Salicylatetb 1:55	Second Handstb3742
Subbenzoatetb 2.75	Cinchonidin, Alk., crystalsoz93
Subcarbonate, U.S.Ptb 2.10	Sulfateoz
For X-ray Diagnosistb 2.65	
	Cinchonine, Alk., crystalsoz54
Subgallatetb 2.00	Sulfate
Subiodidetb 3.95	Sulfate
Subnitratetb 2.00	Cocaine, Hydrochi., Crystoz 0.00
Second Hands	Gran., Powd
	Imported
	Cocoa Butter, bulktb35
Tannatetb 2.00	Fingers, cases
Borax, in bbls	
U.S.P., Kegstb061/4061/2	
Brucine Sulfate	Codeine, Alk., 10 oz. bulkoz 5.10
	Codeine, Alk., 10 oz. bulkoz. — — 6.10 Hydrobromideoz. — — 4.90
Brucine Sulfate	Codeine, Alk., 10 oz. bulkoz. — — 6.10 Hydrobromideoz. — — 4.90
Bromine purified (works) th20	Codeine, Alk., 10 oz. bulkoz. — — 6.10 Hydrobromideoz. — — 4.90 Hydrochlorideoz. — — 5.50
Bromine, purified (works)tb20	Codeine, Alk., 10 oz. bulkoz. — 6.10 Hydrobromideoz. — 4.90 Hydrochlorideoz. — 5.50 Nitrateox. — 5.50
Bromoform	Codeine, Alk., 10 oz. bulkoz. — 5.10 Hydrobromide oz. — 4.90 Hydrochloride oz. — 5.50 Nitrate oz. — 5.50 Phosphate oz. — 4.55
Bromine, purified (works)tb. —20 Bromoformtb. — - 1.75 Bromides, See Potass. Brom, etc.	Codeine, Alk., 10 oz. bulkoz. — 5.10 Hydrobromide
Bromine, purified (works)lb. — 20 Bromoformlb. — 1.75 Bromides, See Potass. Brom., etc. Cadmium Bromide, crystalslb95 — 1.05	Codeine, Alk., 10 oz. bulkoz. — 5.10 Hydrobromide oz. — 4.90 Hydrobloride oz. — 5.50 Nitrate oz. — 5.50 Phosphate oz. — 4.55 Salicylate oz. — 4.55 Scalicylate oz. — 4.55
Bromine, purified (works)tb. —	Codeine, Alk., 10 oz. bulkoz. — 5.10 Hydrobromide oz. — 4.90 Hydrochloride oz. — 5.50 Nitrate oz. — 5.50 Phosphate oz. — 4.55 Salicylate oz. — 4.55 Cod Liver Oil. Newf d. bbi. 17.00 — 18.00
Bromine, purified (works)tb. =20	Codeine, Alk., 10 oz. bulkoz. — 5.10 Hydrobromide oz. — 4.90 Hydrochloride oz. — 5.50 Nitrate oz. — 5.50 Phosphate oz. — 4.55 Salicylate oz. — 4.55 Cod Liver Oil. Newf d. bbi. 17.00 — 18.00
Bromine, purified (works)tb. =20	Codeine, Alk., 10 oz. bulkoz. — 5.10 Hydrobromide
Bromine, purified (works)tb. =20	Codeine, Alk., 10 oz. bulkoz. — 5.10 Hydrobromide oz. — 4.90 Hydrochloride oz. — 5.50 Nitrate oz. — 5.50 Phosphate oz. — 4.55 Salicylate oz. — 4.55 Sulfate oz. — 4.90 Cod Liver Oil, Newf'dbbl. 17.00 — 18.00 Norwegian bbl. 20.00 — 21.00 Colchicine, Alkaloid
Bromine, purified (works)tb. — .20 Bromoform tb. — - 1.75 Bromides, See Potass. Brom., etc. - 1.05 Cadmium Bromide, erystalstb. tb. — 4.00 Metal sticks tb. — 1.00 Caffeine alkaloid, bulk tb. — 3.75 Resale tb. — 3.75	Codeine, Alk., 10 oz. bulkoz. — 5.10 Hydrobromide oz. — 4.90 Hydrochloride oz. — 5.50 Nitrate oz. — 5.50 Phosphate oz. — 4.55 Salicylate oz. — 4.55 Sulfate oz. — 4.50 Norwegian bbl. 17.00 — 18.00 Norwegian bbl. 20.00 — 21.00 Colchicine, Alklaoid oz. — 30.00 Salicylate oz. — 30.00
Bromine, purified (works)tb. =20	Codeine, Alk., 10 oz. bulkoz. — 5.10 Hydrobromide oz. — 4.90 Hydrochloride oz. — 5.50 Nitrate oz. — 5.50 Phosphate oz. — 4.55 Salicylate oz. — 4.55 Sulfate oz. — 4.50 Cod Liver Oil, NewFdbbl. 17.00 —18.00 Norwegian bbl. 20.00 — 21.00 Colchicine, Alkaloid
Bromine, purified (works)tb. —20 Bromoform	Codeine, Alk., 10 oz. bulkoz. — 5.10 Hydrobromide oz. — 4.90 Hydrochloride oz. — 5.50 Nitrate oz. — 5.50 Phosphate oz. — 4.55 Salicylate oz. — 4.55 Sulfate oz. — 4.50 Cod Liver Oil, NewFdbbl. 17.00 —18.00 Norwegian bbl. 20.00 — 21.00 Colchicine, Alkaloid
Bromine, purified (works)tb. =20 Bromoform	Codeine, Alk., 10 oz. bulkoz. — 5.10 Hydrobromide 0.02. — 4.90 Hydrobromide 0.02. — 5.50 Hydrochloride 0.02. — 5.50 Nitrate 0.02. — 4.55 Salicylate 0.02. — 4.90 Sulfate 0.02. — 4.90 Cod Liver Oil, Newf d. 0.bl. 17.00 — 31.80 Norwegian .bbl. 20.00 — 21.00 Colchicine, Alkaloid 0.02. — 30.00 Salicylate 0.02. — 30.00 Colloidon, U.S.P. 1b. 25 — 27 Flexible, U.S.P. 1b. 28 — 30
Bromine, purified (works)tb. —	Codeine, Alk., 10 oz. bulkoz. — 5.10 Hydrobromide oz. — 4.90 Hydrochloride oz. — 5.50 Nitrate oz. — 5.59 Phosphate oz. — 4.55 Salicylate oz. — 4.55 Sulfate oz. — 4.90 Cod Liver Oil, NewFdbbl. 17.00 —18.00 — 21.00 Colchicine, Alkaloid oz. — 30.00 Salicylate oz. — 30.00 Collodion, U.S.P. bb

IODINE

The successful use of Tincture Iodine and Iodides on the Battlefields and in the Hospitals of the World War has proven their wonderful value under the most trying conditions.

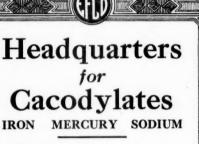
New uses are being found daily, and in the march toward its own, Iodine and its compounds will always be represented by COOPER'S LABEL as the Highest Quality and Purity obtainable.

has. Cooper

194 Worth St., New York

MANUFACTURING CHEMISTS ESTABLISHED 1857

Works at Newark, N. J.



and specializing in

Amidopyrine - Guaiacol Guaiacol Carbonate Ichthyfos (Ammonium Ichthyolate) Sodium Methylarsinate

E. Fougera & Co., Inc. 90-92 Beekman St., New York Established 1849!

Our complete chemical line embraces

Citrates Iodides Glycerophosphates Quinine Sulphate Resorcinol Pepsin



DIACETYLMORPHINE Alkaloid and Hydrochloride

ETHYLMORPHUNE HYDROCHLORIDE

APOMORPHINE HYDROCHLORIDE

Powers-Weightman-Rosengarten Co.

Manufacturing Chemists

New York PHILADELPHIA St. Louis

N. Y. Q. PRODUCTS

Acetanilide, U.S.P. Bismuth Subnitrate and other Bismuth Salts

Codeine and its Salts Creosote, U.S.P. Creosote Carbonate, U.S.P. Diacetyl-Morphine Glycerophosphates Hexamethylenamine Iodoform

Mercurials (Hard) Morphine and its Salts Opium Powder, U.S.P. Opium Gran., U.S.P. Potassium Iodide

MORPHINE King of Alleviators

AREFUL regulation and the wisdom of modern science tend more and more to remove morphine from the danger of careless and indiscriminate use, and to make it truly a boon to mankind.

The use of N. Y. Q. morphine and its salts in your prescriptions means the utmost service to both the physician and patient.

The New York Quinine & Chemical Works, Inc. 135 William St., New York St. Louis Depots 18 So. Broadway

N. Y. Q. PRODUCTS

Quinine and its Salts Silver Nucleinate Silver Proteinate Sodium Benzoate Strychnine and its Salts Thymol Iodide

There can be no higher degree of purity than that which is presented to you under the label of



DR

Methyl Methyl Methyl Milk, 1 Minera Morphi Hydr Hydr Sulfa Diace Diace Ethy Opium Gra Oxgall, Pancre. Papain Parafo Pepsin Petrola Crear Lily Snow Phenol Phosph Pilocar Alka Nitra

Fine Chemicals

Corrosive Sublimate, see Mercury	Guaiacol. liquid	Lead
Cotton Solutiontb35	Carbonatetb. 3.75 - 4.25	Licori
Coumarin, refined, see Aromatic Chemicals	Haarlem Oil, domgross 3.50	Pow
Cream Tartar, U.S.Ptb261/4		Stick
Imported, U.S.P	Hexamethylenetetraminetb6768	Com
Creosote, U.S.Ptb4045	Hydrastine, Alkaloidoz. 17.50 -18.00	Lithiu
Carbonate		
Cresol, U.S.P	Hydrochlorideoz. 17.50 —18.00	Citr
Diethyl Phthalate	Sulfateoz. 17.50 —18.00 Hydrastinine Alkaloidoz. — —60.00	Magne
Dionin, See Morph. Ethyl Hydrochl.	Hydrogen Peroxide, U.S.P., 19 gr. lots	BI
Dover's Powder, U.S.Ptb 2.20	4-oz. bottlesgross 7.50 - 8.50	Glyd
Duboisine Sulfateoz60.00	8-oz. bottlesgross 12.00 -12.25	
Emetine Alk., 15 gr. vialsea 1.00 Hydrochloride, U.S.Poz. 16.00 -17.50	16-oz. bottlesgross 20.00 -20.25	Нур
	Hydroquinone, bulk	Oxio
15 gr., vialsea	Hyoscine Hydrobromideoz. 12.00 -14.00	Pero
Technical	Hyoscyamine Alkaloidoz. 18.00 -20.00	Sali
Ergotin, Bonjeantb. — -10.00		Sulf
Eserine Sulfatez14.50	Sulfateoz. 18.00 —20.00	Malt
Salicylateoz. — —18.00 Alkaloidoz. — —40.00	Iodides, See Potass. Iodide, etc.	Manga
Ether, U.S.P., Conc. bulktb14	Iodine, Resublimed	Нур
Washed, bulktb31	Tincture, U.S.P., bblsgal. 3.75 - 3.95	Iodi
Nitrous, conc	Iodoform, Powdered, bulktb 4.75	Sulf
U.S.P., 1880, bulktb39	Crystalstb 5.75	Menth
Anaesthesia, bulk	Iron Citrate, U.S.P., VIIItb99	Mercu
Motor Ether, 1 tb. canstb26	and Ammon. Citrate, U.S.P.tb84	Bisu
Ethyl Acetate, puregal93 - 1.05	Green scales, U.S.Pfb84	Blue
85 p.c. Estergal57 — .65 Bromide	Cacodylate	Blue
Chloride	Chloride, cryst. (ferric)tb1213	50
Ethyl Methyl Ketonetb1314	Hypophosphitetb. 1.55 - 1.60	Citr
Eucalyptol, U.S.P., See Aromatic Chemicals	Iodidetb 3.50	Calo
Formaldehyde	Syrup, U.S.P., 1900tb. — — .30 Oxalate, scalestb80 — .85	Corr
Second Hands	Oxalate, scales	Iodi
Gold Labelb	and Potassium	Re
Glycerin	and Sodium, cryst	Ye
C.P. drums, bbls., extratb161/217	Phosphate, U.S.P	Red
Cans	Pyrophosphate, U.S.Ptb94 Metallic, Reducedtb65	Whi
Dynamite, drums, loose 1515½ Saponification, loose 1b11½ .12	Lanolin, hydrous, U.S.Pib1215	Po
Soap Lye, loose	Anhydrous	With
Don't 101 1 101 111 111 111 111 111 111 111		

_			_
1	Lead Iodide, U.S.P., VIIItb.	_	- 2.50
	Licorice, U.S.P., Masstb.	_	- 25
	Powderedtb.	-	40
	Stickstb.		50
	Comp. Powdertb.		13
	Lithium Carbonatetb.	_	- 1.50
	Citratetb.		- 1.75
	Magnesium Carb. U.S.P.bbls.tb.	.12	14
	Technical, bblstb.	.063	410
	Blocks, cases, 1, 2, 4 ozstb.	.18	22
	Glycerophosphatetb.	_	- 3.00
	Hypophosphitetb.	-	- 1.20
	Oxidetb.		53
	Peroxide, canstb.	-	- 2.15
	Salicylatetb.	_	50
	Sulfate, (See Epsom Salt)		
	Malt Syrup kegstb.	-	10
	Manganese Glycerophostb.	-	- 3.00
	Hypophosphite, U.S.P., VIIItb.	1.85	- 1.95 - 5.65
	Iodide	_	- 3.00
	Menthol, Crystalstb.	5.25	- 5.40
	Mercury, flasks, 75 tbea.		50.00
	Bisulfatetb.	_	39
	Blue Massb.		56
	Powdered	_	58 56
	50 p.ctb.	_	72
	Citrine Ointmenttb.	-	
	Calomel, Amer	70	82
	Powdered Granular	.65	81 66
- 1	Iodide, Greentb.	-	- 2 11
	Yellowib.	-	- 3.21 - 3.11
	Red Precipitate		91
	Powderedtb.	_	- 1.01
- 1	White Precipitateb.	_	- 1.06 - 1.11
	Powdered		- 1.11

Eastman Organic Chemicals



Manufacturing Chemists need to have at hand numerous organic reagents for special determinations.

Especially pure, reliable organic compounds are available for:

Rubber Accelerators Physiological Reactions Metal Determinations Organic Group Reactions Wood Analysis Gas Analysis Water Analysis

Eastman Kodak Company

Research Laboratory

Rochester, N. Y.

FORMALDEHYDE-

WOOD ALCOHOL

(ALL GRADES)

The Mimer Edgar Company Rail and Water Facilities 110 William Street New York



Fine Chemicals

		1						
Methyl Acetone, drumsgal.		Potass. Carbonate, U.S.Ptb.	.12	13	Quinine Dicarbonateoz.	2.00	— 2 .	50
Methyl salicylate, see Aromatic		Caustic, U.S.P. (by alcohol)th.		45	Ethyl Carbonateoz.	_	- 1.	10
Methylene Blue, medicinaltb.	4.00 - 4.25				Ferrocyanideoz.	_		88
Milk, powderedtb.	.1415	U.S.P. purified		30	Formateoz.	_	-	88
Mineral Oil, whilegal.	.75 — 1.25	Chlorate, Imp., Powdtb.	.06	061/	Glycerophosphateoz.	_		88
Morphine, Acet., 10-oz. in 5s.oz.	-4.90	Chromate, cryst. yellow,			Hydriodideoz.		- 4	88
Hydrobromide, 10-oz. in 5s.oz.	4.90	tech. 1-lb., c. b. 10tb.		42	Hydrobromideoz.	-		79
Hydrochloride, 10-oz. in 5s.oz.	4.90	Citrate, bulk, U.S.Ptb.		65	Hydrochlorideoz.	_		74
Sulfate, 10-oz. in 5soz.	4.90	Glycerophosphate, 75 p.coz.			Japaneseoz.		- 3	
Diacetyl, Alk., 10 oz., 14s. oz.	8.40	Guaiacol Sulfonatetb.	2.25	- 2.75	Hydrochlor. & Ureaoz.			
Diacetyl Hydel., 10 oz., 14s.oz.	7.60	Hypophosphite, bulkfb.	_	85	Hypophosphiteoz.			
Ethyl Hydel., 10 oz., 18oz.	8.95	Iodide, bulktb.	_	- 2.90	Lactateoz.		_ :	
Opium cases, U.S.P	5.50	Second Handstb.	_	- 2.85	Phenolsulfonateoz.			
Granular	6.75	Lactophosphateoz.	-	90	Phosphateoz.		_ :	
Powdered, U.S.P	6.75 6.75	Nitrate, see Saltpetre					_ :	
		Oxalate, Neutraltb.	.40	45	Salicylateoz. Tannateoz.		= ;	
Oxgall, pure, U.S.Ptb.		Permanganate, U.S.Ptb.		15	Tartrateoz.	_		88
Pancreatin		Salicylatetb.		85	Valerateoz.			
Papaintb.		Sulfate, C.Ptb.		38	Quinidine Alk., crystals, tinsoz.			
Paraformaldehydetb.	.50 — .55	Tartratetb.		65	Sulfate, tinsoz.			
Pepsin Powd., U.S.Ptb.	2.50				Resorcinol, crystals, U.S.P tb.		- 1. - 1.	
Petrolatum, light amber bbls.tb. Cream White	05 061/2	Pumice Stone, lump		05	Resale	1.00	- 1.	13
Lily White	12	Powderedtb.		04	Rochelle Salts, crystals	_		21
Snow White	13	Pyridingal.		— 1.75	Imported, U.S.Ptb.		- :	
Phenolphthalein		Quinine Sulf., 100-oz. tinsoz.	-	60	Rosewater, triplegal.		1.	25
Phosphorus, yellowtb.	.2630	1-oz. tinsoz.	_	68	Saccharin, U.S.P		- 1.	
Pilocarpine, hydrochlorideoz.	6.00	Imported, Javaoz.	_	60	Resale		- 1.	
Alkaloid, 15 gr. vialea.	80	Imported, Japanesetb.	.58	59	Salicin, bulktb.	-	- 4.	
Nitrateoz.	-6.25	Bisulfate, 10-oz. tinsoz.	_	60	Salol, U.S.P., bulk			
Piperazine Hydrateoz.	50	Alkaloidoz.	_	79	Saltnetre, Double ref. bbls. tb.	.073	4	09
Plaster Paris, true dentalbbl.	4.35 - 4.50	Acetateoz.	_	88	Santonin, cryst., U.S.P Ib.	147.00	-150.	00
Podophyllin	4.00 - 4.25	Arsenateoz.	_	88	Powderedb.	148.50	-151.	50
Bicarbonate, U.S.P	.071/2 .09	Benzoateoz.		88	Seidlitz Mixture, bblstb. Silver Nitrate, 500 oz. lotsoz.		= :	
Bisulfatetb.	40	Citrateoz.		88	Nucleinateoz.	.30		.36
Bromide Crystals, bulkib.	19	Dihydrochlorideoz.		88	Resaleoz.	.25		.28
Imported, U.S.P	$\frac{-}{.13}$ $\frac{-}{.14}$	Dihydrobromideoz.			Proteinateoz.		= 1	
imported, U.S.F	.19 — .14	1 Dinyarobromide	-	88	Colloidaloz.	_	- 1.	O.
								_

R.W. GREEFF & CO.

Incorporated

78 FRONT ST. NEW YORK CITY

Western Sales Office: 1266 Transportation Building, 608 S. Dearborn Street, Chicago, Ill.

Chemical Merchants Importers and Exporters

Arsenic
Barium Chloride
Caustic Potash
Cresylic Acid
Formaldehyde 40% Vol.
Formic Acid
Oxalic Acid
Phthalic Anhydride
Precipitated Chalk
Sodium Acetate
Sodium Prussiate
Tartaric Acid

Cable Address: Fergcotrav, New York All Codes Used

European Representatives:

R.W. GREEFF & CO., LTD.

London and Manchester, England



Heavy Chemicals

Soap, Castile, white puretb.	.2022	Strychnine Alkd., crystoz.	1.20	Heavy Chemicals
Powd., U.S.P., bblsfb.		Alkaloid, Powdoz.	1.10	
Green, U.S.Ptb.		Acetateoz. Glycerophosphateoz.	1.10 1.10	ACIDS
Sodium, Acetate, U.S.P.,gran.tb.	.1215	Hydrobromideoz.	1.10	Acetic, 28 p.c., bbls100 tbs. 2.50 - 2.75
Benzoate, gran., U.S.Ptb.	.52 — .65	Hydrochlorideoz.	-1.10	56 p.c., bbls
		Hypophosphiteoz.	1.20	70 p.c. bbls100 fbs. 6.50 - 7.00
Bicarb., U.S.P., powd., bbls.lb.			1.10	80 p.c., bbls., Com'1.100 fbs. 7.89 - 8.64
Bromide, U.S.P., bulktb.	20	Phosphateoz. Sulfate, crystals, powdoz.	1.10 88	80 p.c., bhls., pure. 100 fbs. 10.16 -10.41
Imported, U.S.P		Sugar of Milk, Powdertb.	.18181/2	Glacial, bbls100 fbs. 9.00 -10.00
Cacodylatetb.	2.75 - 3.05	Sulfonal, 100-oz. lotsoz.	38	Chlorosulfonic, 93-95 p.ctb15 - 46 Hydrobromic com., 48 p.ctb35 - 37
Caustic, U.S.P., See Sod. Hyd	roxide	Sulfonethylmethane, U.S.Ptb.	5.75	Pure, 40 p.cb 40
Chlorate, U.S.P., 8th Rev.		Sulfonmethane, U.S.P1b. Sulfur, roll, bbls100 fbs.	2.15 - 4.75 2.15 - 2.70	Hydrofluoric 30 p.c. bblstb. 07 - mu
Crystals, c.b., 10tb.	.1314	Flour, 100 p.c. pure100 fbs.	2.50 - 3.15	48 p.c. in carboys
Granular, c.b., 10tb.	.1617	Flowers, 100 p.c. pure100 lbs.	3.00 - 3.65	52 p.c. in carboystb13 — .14 60 p.c. in carboystb16 — .17
Chloride, C. Pb.	07	Precip., U.S.Ptb.	.171/2181/4	60 p.c. in carboys
Citrate, U.S.P., Cryst. VIIItb.	60	Lac Sulfurtb.	.0810	Hydrofluosilicie 35 p.ctb10 - 124
VIII	60	Tartar Emetic, tech	.31 — .32	Lactic, 22 p.c., dark
Granular, U.S.P., gran.IX.tb.	73	Talcum, Amer., bags100 fbs.	1.25	22 p.c., light
Cyanide 96-98, see Heavy Chen	nicals	Purified100 fbs.	3.00 - 3.50	44 p.c., dark
Glycerophosphate, crystalstb.	1.95	Terpin Hydratetb.	.58 — .61	66 p.c
Hydroxide, U.S.P	18	Theobromine Alkaloidtb. Thymol, crystals, U.S.Ptb.	5.75 — 6.00 4.70 — 4.85	80 p.c., Imported
Hypophosphite, U.S.P b.	75	Iodide, U.S.P., bulk	7.75 - 8.00	Mixed, Nitricunit .08084
Iodide, bulkb.	— — 3.40	Tin bichloride, see Heavy Chemi	cals	Sulfuric
Nitrate, U.S.P	$.0505\frac{1}{4}$	Oxide, 500 lb. bblstb.	40	Muriatic, 18 deg. cbys.100 fbs. 1.00 - 1.25 20 deg. carboys100 fbs. 1.25 - 1.50
Oxalate, Neutralb.	.35 — .40	Metallic, Crystals	.29 — .30	22 deg. carboys100 lbs. 1.80 - 2.00
Peroxide	07	Toluene, See Coal Tar Crudes Tribromphenol		Iron Free chys., 18 deg.
Recryst	13	Trionaloz.	90 47	100 fbs. 1.00 - 1.25
Pyrophosphatetb.	14	Urea, Imp. Pharmaceuticaltb.	.4045	20 deg100 fbs. 1.25 — 1.50
Salicylate, U.S.Ptb.	.30 — .32	Veratrine Sulfateoz.	2.50	22 deg
Resaletb.	28	Hydrochlorideoz.	− − 2.50	Nitric, 36 deg. carboys
	1.25 - 1.50	Witch Hazel, Ext., dble dist., bblgal.	1.20 - 1.30	40 deg. carboys
Needle Crystalscwt.	1.75	Yohimbin, Hydchloz.	12.50	47 deg. carboystb06¼07¼
Sulfocarbolate	.25 — .27 .60 — .70	Zinc Carbonate, U.S.P., precip.tb.	37	Oxalic, bblstb131/2141/4
partein Sulfate	29	Chloride, U.S.P	.3540	Phosphoric, 50 p.c., techtb1011
Carbonate, pure	28	Nitrate	42	Syrupy, 65 p.ctb16 — .19
Iodide, bulkb.	− − 3.25	Oxide, U.S.P., bbls	3.75 17	Pyroligneous, Techgal1010%
Nitrate, Kegs	10	Stearatetb.	23	Sulfuric, Tank carlots 60 deg., f.o.b. wkston 10.00 -10.50
Salicylate, U.S.Pb.	.70 — .72	Sulfate, U.S.Pb.	08	66 deg., f.o.b. wkston 16.00 —16.50

VARNISH GUMS

Damar Manila Kauri Karaya Congo

IN VARIOUS GRADINGS

Soluble Colors—
OIL, SPIRIT and WATER
In a Variety of Tones

Chemical Driers, Etc.

Inquiries Solicited

A. KLIPSTEIN & COMPANY 644-52 Greenwich St. New York City 1816



1922

"Over a Century of Service and Progress"

Magnesite
Magnesium Chloride
Epsom Salts

Prompt Shipments

Manufacturers, Importers, Exporters of

Industrial Chemicals

INNIS, SPEIDEN & CO., Inc.

46 CLIFF ST., NEW YORK CITY

Phone BEEKMAN 4031-6

Branch Offices

Chicago Philadelphia Boston Cleveland Gloversville, N. Y

Factories

Niagara Falls, N. Y. Jersey City, N. J. Owego, N. Y.

Murphysboro, III.

Acid,
40
60
Sulf

DRU

Aceton Acetic Acetyl Alum, Gro Chr

Potas Gro Pov Chr Soda, Alumir Ani Sulfa Cor Alumir

Alumin Ammor Ammor 20 de 18 de 16 d Ammor Imp

Lacta Nitra Persu Sal Gra

Sulfa *Don

- 2.75 - 5.86 - 7.66 - 7.66 - 10.41 - 10.00 - 36 - 37 - 38

1.25 1.50 2.00

.06 .06% .07 .07% .14%

.10% .50 .50

Heavy Chemicals

	~	
Acid. Sulf., 20 p.c. Oleum,		1
tanks, f.o.b. wkston	19 50 20 00	- 1
40 p.c. oleumton	35.00 -40.00	- 1
60 p.c. oleumton	65.00 -75.00	- 1
Sulfurous comtb.	.12 - 14	- 1
Tannic, Techtb.	.4055	- 1
Tungstictb.		- [
Acetone	.121/2 .13	- 1
Acetic Anhydride, 85 p.c fb.	40	- 1
Acetyl Chloride, Redistilled.tb.	.4550	
Alum, ammonia, lump	.031/2 .033	4
Imported	.033404	.
Groundtb. Powderedtb.		
Chrome		4
	.071/408	. 1
Potash lumptb.	.05057	
Imported	.031/2 .033/	4
Powderedtb.	.06 — .06	1
Chrometb.	.061/2 .07	2
Soda, Ground100 fbs.	3.50 - 4.00	- [
Aluminum chloride, carboys. tb.	.0405	-
Anhydroustb.	.3540	1
Sulfate Iron free 100 lbs.	2.50 - 3.00	1
Commercial100 fbs.	1.85 - 2.40	1
Aluminum hydrate light 1b.	.2022	1
Ammonia, Anhydroustb. Ammonia Water, 26 degtb.	30	1
Ammonia Water, 26 deg 1b.	.071/2091/	4
20 deg	.0608	
18 degb.	.051/2071/	i
16 degtb.	.05 — .07	1
Ammonium Bifluoridetb.	.2024	-
Importedtb.	.2022	1
Carbonatetb.	.0809	1
Lactatetb.	17	1
Nitratetb.	.051/4061/	١.
Persulfate, bulktb.	50	1
Sal Ammoniac, gray tb.	.071/4081/	il
Imported	.061/2 .07	
Granulated, white	.071/2 .073/4	
Importedtb.	.063407	1
Lumptb. Sulfate, dbl. bags,f.a.s.100 fbs.	2.60 - 2.75	1
Dom., Bulk, wks100 fbs.	2.60 — 2.75 2.25 — 2.30	1
Donn., Durk, WKS100 IDS.	243 - 2.30	

Antimony chloride, liqtb1214	1
1 19.50 —20.00 Aphydrone	1
1 35.00 -40.00 Oxide	1
0 101 0 1	
1214 Sulfide, Crimson	Ι.
1.00 - 1.05 Vermillionb55	1
.121/2 .13 Tartrolactate	1
40 Arsenic, white	1
.45 - 50 Red th. 11 - 12	1
03½— .03¾ Barium, chlorideton 50.00 —75.00	1-
.03404 Importedton53.00	
.0356— .0376 Binoxide	E
.040414 Imported	F
.071/2 .08 Carbonateton 75.00 -85.00	١,
.0505½ Imported	I
	1
.05½— .06 .06 — .06½ Barytes, floated, whiteton 28.00 —29.00	1
.06½ .06½ Blanc Fixe,	1
3.50 — 4.00 Imported	I
.04 - 05 Bleaching Pd., f.o.b.wks.100 ths 2.25 - 2.50	
.35 — .40 Export. F.A.S100 fbs 2.50	
2.50 - 3.00 Imported	
1.85 - 2.40 Bromine, Purified wksth 20	
.2022 Calcium Acetate100 lbs 1.75	
30 Arsenateb1819	
.071/2091/2 Carbidetb041/205	
.0608 Carbonate	
.051/2 .071/2 Chloride, solid, f.o.b.N.Y.ton — —24.75	
.0507 Imported	
20 — 24 Granulated, f.o.b. N.Yton — —30.75 Flaked, f.o.b. N.Yton — —30.75	L
Annydrous 11 12	
.0809 Lactate	L
17 Nitrateton40.00	
.05¼— .06½ Chlorine, liquid th 06 067/	
50 Carbon bisulfide, C.I. & leasth 051/ 071/	N
00% Carbon black	N
Carbon tetrachlor., C.L.&Lessib. 101/2 12	44
061/ 07 C C	
16 16 16 2021	
260 277 000	
2.25 _ 2.20 Subsected (V-1:	
223 - 2.50 Subacetate (Verdigns)Ib30	

				_
	Copper Sulfate100 hbs.	5.55	_	5.65
	* Imported100 fbs.	4.95	_	5.00
6	Tartrate (verdigris sub-			
-	stitute)fb.	_	_	.30
	Copperas, wks 100 lbs.			
	Ferric Chloride, crys			
	Liquid, 40 deg			
4				
	Ferrous Chloride, crys			
	Sulfide100 fbs.			
	Flake Whitetb.	.093	4-	.101/6
	Fluorspar, Powderedton			
	Acid Grade, f.o.b. mineston	-	-2	0.00
	Fuller's Earth, f.o.b. mineston	16.00	-1	7.00
	Importedton Fusel Oil, crudegal.	35.00	-	0.00
	Refinedgal.		_	2.50
	Kieselguhr 100 ths.	1.75	_	2.00
	Kieselguhr100 fbs. Lead Acetate, white crystfb.	.11	-	.1114
	White Cakes, brokenb. Granulated	.105	2-	.11
1	Granulatedtb.	.103	4-	.1134
	Brown Cakes, broken b.	.095	8—	.1036
	Arsenate, powdered		_	.18
	Paste	80.		
ı	Oxide, Litharge, Amer. pd.tb.	073	_	.0734
	Red. American	.08	_	.0834
	Sulfate, basic white	.063	-	.07
1	White, Basic Carb., Amer.		-	
1	drytb.	.073	-	.071/2
	Lithoponeb.	.06	-	.061/2
	Importedtb.	.00	_	.051/4
1	Lime, hydrate	.01	=	1 75
	Mitento	_	_4	0.00
	Sulfur, Powdtb.	.101/	-	.12
1	Magnesiteton	70.00	-7	2.00
1	Sulfur, Powdtb. Magnesiteton Magnesium Sulfate, tech.100 fbs.	1.85	-	2.00
1	Imported	1.00	_	1.10
J	Carbonate, techtb. Chloride, fused, f.o.b. N.Y.ton	36.00	_	.00
1	Imported fused & granton	32.00	-3	6.00
	Imported, fused & gran.ton Flaked, f.o.b., N. Yton	38.00	-4	2.00
1	Fluosilicate. 30% soln.100 fbs.	8,00	-10	0.00



CHEMICALS

Barium Chloride Strontium Nitrate Barium Nitrate Nitrite of Soda Salt Cake Strontium Carbonate Djatilled Water Battery Solutions

ACIDS

Acetic (all strengths)
50%-50%-65%-98%
Oil of Vitriol
Oleum 20% to 65%
Electrolyte
Muriatic (all strengths)
Nitric (all strengths)
Aqua Fortis
Mixed Dipping

ALUMS

Papermaking Sizing Filter Iron Free Porous Pickle Pearl Ammonia, U. S. P. Potash, U. S. P. Sulphate of Alumina, 17%-22% Al2 O3

E. I. du Pont de Nemours & Company, Inc. Sales Dept.: Acids & Heavy Chemicals Divisions WILMINGTON, DELAWARE

Branch Offices: NEWARK 240 Vanderpool Street Telephone, Waverly 4670 PHILADELPHIA 3500 Gray's Ferry Road Telephone, Oregon 7950



CARBON TETRACHLORIDE

(in 5, 10, 55 and 110 gallon drums)

CARBON DISULPHIDE

(in 5, 10 and 55 gallon drums)

SULPHUR CHLORIDE

(in bottles, jugs and drums)

SODIUM PHOSPHATE

(all grades)

THE WARNER **CHEMICAL COMPANY**

Manufacturers

52 Vanderbilt Avenue, New York Telephone Murray Hill 262

PLANTS

Carteret, N. J.

South Charleston, W. Va.

DRU

Heavy Chemicals

Manganese Chloridett			
Dioxide, 80-84 p.cto			
85-90 p.cto			
Sulfateth			
Salts, singleth			
doublet			***
Nitre Cake, bulk wksto			.11 4.50
Orange Mineralth			.13
Paris Greenth			.13
Phosphorus red			.50
Importedtb	25	=	.40
Yellowth	. –	_	.35
Importedtb	23	_	.30
Oxychloridetb		-	
Sesquisulfidetb		-	
Trichloridetb		-	
Plaster of Paris, techbbl			4.50
Potash Caustic, 88-92tb	06	=	.10
Potassium Bichromatetb	.10	=	.103
Poweredtb		-	.135
Binoxalate, tech	40	1-	.42
Hydratedtb		/-	.06
*85-90 p.ctb	_	-	_
90-95 p.ctb		=	.10
Chlorate, crysttb		_	.09
Powdered, American tb	.08		.09
Imported, pow. & crystb Swedish, Powdtb	.053		.09
Muriate, basis 80 p.cunit	.70		.75
Metabisulfitetb		-	.25
Perchlorate	.14		.14
Importedth	.11		.13
U.S.P., See Fine Chemical			

	_	_	
Potass. Prussiate, redtb.	.38	_	.40
Yellowtb.	.25	_	.26
Sulfateunit	_	_	1.00
Titanium Oxalatetb.	-	_	.50
Salt, techton	12.00	-1	5.00
Salt Cake, bulkton			
Saltpetretb.			.0934
Soda Ash, 58 p.c. light.100 fbs.			
Basis, 48 p.c.wks.bgs.100 fbs.			
Dense, 58 p.c. bags. 100 fbs.			
Basis 48 p.c. wks.bgs.100 fbs.	1.375	12-	1.421/2
Caustic, 76 p.c100 fbs.			
Basis 60 p.c100 fbs.	2.60	_	2.75
Ground, 76 p.c. wks.100 fbs.	4.00	_	4.25
Sodium Acetate			.0434
Aluminum Sulfate100 fbs.			
Bicarbonate, bbls. & kgs. 100 fbs.			
Bichromateb.			.073/4
Bisulfate, bulk, wkston			
Bisulfite, Powdtb. Solution 32-40 deg100 fbs.	1.35	4-	.043/4
Carbonate Sal. bbls100 fbs.	1.65	_	1.90
Chloratetb.	_	_	.07
Importedtb.	_	_	.061/2
Chloride, tech,ton	12.00	-1	5.00
Cyanide, 96-98 p.etb.	.26		.28
73-76 p.ctb.	.231/	2-	.25
*Imported 120%tb. *128 p.ctb.	.23	-	.24
Fluoridetb.	.10		
Hydrosulfiteth.	.40	_	.45
Hyposulfite, Crys., bbls.100 lbs. Granulated100 lbs.	3.50	-	8.75
Tungstate, crys			
Dessicatedtb.	.70	_	.75
Nitrate, crude100 fbs.	2.371/2	- :	2.40
Double refined, Granfb.	.05	-	.051/4

-		
	Sodium Nitritetb.	.061/2061/4
	Perborate, imp. & domesticib.	.20 — .35
	Peroxidetb.	.2527
	Phosphate (tri)	.051/206
	di-Sodium, U.S.P., gran fb.	
	Technicaltb.	.040414
	Mono-Sodium, ref	.2530
1	Prussiate, Yellowtb.	.171714
	Silicate, 60 deg100 tbs.	3.00 - 3.50
1	40 deg100 lbs.	.95 - 1.75
,	Silicofluoride	0.0734 - 0.08 $1.25 - 1.50$
1	Sulfide, 60 p.ctb.	.05 - 051/
ı	Importedtb.	.041/4- 111/4
	30 p.c. crystalstb.	.041/4041/4
	Sulfite, Crystalsb.	.031/204
	Dessicatedtb.	
	Thiocyanate (Sulfocyanide)tb.	.50 — .52
	Strontium Nitrate	· .14 — .16 .10½— .11
1	Carbonate Imp	.10/2 .11
	Sulfur Chloride, red	.10 — .15
١	Yellow	.041/ 05
	Sulfur Dioxide Ila, cyltb.	.041/205
1	Sulfur, crude	20.00 -25.00
J	Flour Com'l., bbls100 fbs.	1.45 - 2.00
1	Flowers, 100 p.c100 fbs. Sulfuryl Chloridefb.	2.75 — 3.65 — — 1.00
1	Tartar Emetic, tech	.3133
1	Tin, bichloride 50 p.c. Sol'n.tb.	.10541014
1	Crystalstb.	.283014
1	Oxide	.37 — .38 .20½— .22
1	Whiting100 fbs.	1.15 - 1.75
1	Zinc, carbonate	.1618
I	Chloride, Fusedtb.	.07071/2
1	Granulatedtb.	.08081
1	Imported fus'd & gran.tb. Cyanidetb.	.06 — .06%
1	Oxide, French	.11124
1	American	.0309
1	Sulfatetb.	.0303%



Soda Ash 58% Caustic Soda 76% Modified Sodas Special Alkali Bicarbonate of Soda U. S. P.

Complete Factories at Painesville, Ohio.

Directly Served by Three

Trunk Line Railroads,

Manufactured by

Diamond Alkali Company

GENERAL OFFICES PITTSBURGH, PENNA

NITRATE SODA

DOUBLE REFINED CRYSTALS GRANULATED OR POWDERED



BATTELLE & RENWICK

Estb. 1840 Incp. 1902 80 Maiden Lane, New York, N. Y.

Coal-Tar Products

Crudes Anthracene 80-85 p.c. ... tb. 40-45 p.c. ... tb. Benzene, C. P. ... gal. Resale, drums included.gal. 50 p.c. ... gal. Carbacol ... tb.

.065/4 .35 .27 .06 .085/4 .045/4 .045/4 .05/5 .05/5 .05/5 .05/5 .008/6 .05/5 .008/6 .005/5 .008/6 .005/6 .009/6 .0

	Acid Naphthionic, Crudetb. Refined	.65 .70		.70
_	Acid Nevile & Winther's		-1	
	Acid Phthalic	.32	-	.35
	Anhydridetb.		-	.37
3	Acid Picramicb.	.65	_	.70
	Acid Picrictb. Acid Salicylic, techtb.	.20		.22
3	Acid Sulfanilie tach	.26	=	28
)	Acid Sulfanilic, tech	1.60	- 1	.70
)	Acetanilide, tech	.27	_	.29
3	p-Aminoacetanilide	1.25	- 1	1.30
,	Aminoazobenzene		- 1	.15
	p-Aminophenolb.	1.30	- 1	.40
5 01/3 81/3 7	Hydrochloride	1.50 2.50		1.00
81/2	Aniline Oil, (drums extra)		2-	
7	Aniline Salttb.	.25	-	.27
	o-Anisidinetb.		- 2	2.10
7	p-Anisidinetb.	3.00	- 3	
ó	Technicaltb.	1.65	- 1	1.70
í	Anthraquinone Sublb.	1.50	- 1	1.55
l	25 p.c. pastetb. Bayer's Salttb.	.75	= ;	.80
5	Benzaldehyde, Tech	.45	= ,	
	Benzidine Basetb.	.90	_	.95
1	Sulfatetb.	.70	=	.75
5	Benzoyl chloridetb.	1.00	- 1	1.05
		.30	-	.32
_	Bromobenzenetb.	.35	=	
	Chlorobenzeneb.	.10	= ;	
	Chlorhydrin	5.50		
-	Dianisidinetb.	4.75	_ :	
)	o-Dichlorobenzene	.15	_	.17
5	p-Dichlorobenzenetb.	.17	-	.20
5	Dichlorobenzene, mixed tb.	.06	_	.071/2
)	Diethylanilineb.	.90	-	
3	Dimethylaniline, drums ext. b.	.38	=	.95
2	Dimethylsulfatetb. Dinitrophenoltb.	.40	=	
2	Dinitrophenoi	.21	_	
5500	Dinitrochlorobenzene	.25	-	.27
)	Dinitronaphthalene	.33	_	.35
5	Dinitrotoluene	.25	_	.27
5	Diphenylaminetb.	.60	-	.65

ł	Diphenyloxidetb.	_	90
1	Ethyl Benzyl Aniline fb.	_	- 1.40
1	Ethyl Bromidetb.		40
1	Ethyl Chloride	.55	60
1	"G" Saltb.	.70	72
ı	Hydrazobenzenetb.	1.30	- 1.35
1	Methyl Chloride	1.00	50
ı	Methyl Chloride		50
ı	Monochlorobenzene	.10	12
1	Monoethylanilineb.	1.00	- 1.05
١	a-Naphthol, crudeb.	1.00	- 1.15
1	Refined	1.10	- 1.25
1	b-Naphthol, distilled	.30	- 1.23
١	a-Naphthylamineb.	.30	32
1		1.00	- 1.05
١	b-Naphthylamine, tech	1.50	- 1.60
ı	Sublimed	.85	90
1		.77	80
1	p-Nitroanilineb.		60
1	p-Nitroacetanilideb.	.55	
1	Nitrobenzene, redistilled b.	.11	121/2
1	o-Nitrochlorobenzene	.38	40
1	p-Nitrochlorobenzenefb.	.27	30 - 32
1	Nitronaphthalene	.30	
1	p-Nitrophenoltb.	.75	77
ı	o-Nitrophenoltb.	.75	77
١	m-Nitro-p-toluidine	2.50	- 2.60
1	p-Nitro-o-toluidine	2.75	-3.00
1	p-Nitrosodimethylaniline ib.	_	_ =
1	Nitrotoluene-s, Mixed	.15	17
1	o-Nitrotoluenetb.	.15	18
	p-Nitrotoluene	.70	72
	p-Oxy-benzaldehydetb.	1.50	-1.60
1	p-Phenetidintb.	1.35	- 1.40
1	p-Phenylenediamine	1.60	-1.65
	m-Phenylenediamine	1.05	- 1.10
i	Phenyl-a-Naphthylamine tb.	-	
	Phosgenetb.	.60	70
1	Phthalic Anhydride	.35	37
	"R" Salt	.60	65
	Resorcinol Technicaltb.	1.40	- 1.50
	Sodium o-Chloro-p-toluene sul-		
	fonate	.25	30
	Metanilateb.	1.40	- 1.46
	Naphthionate	.60	65
	Picramate	.55	60
	p-toluene sulfonatefb.	.08	09
	F		

Intermediates

Acid 1, 2, 4		
Acid, Anthranilie	1.30	- 1.35
Technicaltb.		
Acid Benzoic, techtb.	.45	50
Acid Broenner'stb.	1.55	- 1.60
Acid Chloracetic, techtb.	.40	42
Acid Clevestb.	1.52	-1.55
Acid Gammatb.	2.00	- 2.25
Acid Htb.	.90	- 1.00
Acid Laurent'stb.	.75	80
Acid Metanilic	1.60	- 1.65
1 11 36 16 1 77 (1 1:) 4	0.00	0.00

PHTHALIC ANHYDRIDE Pure Needle Crystals

MADE BY AIR OXIDATION PROCESS

HIGHEST DEGREE OF PURITY NO VARIATION IN QUALITY

The Walker Chemical Company

PITTSBURGH, PENN., U. S. A.

Specifications on Request

DINITROTOLUENE

PROBABLY the most vital factor governing the manufacture of artificial colors is the quality of the intermediates used for their synthesis.

Many consumers of Du Pont Dinitrotoluene continue the exclusive use of our product because it still is the market standard to which all others are compared.

E. I. du Pont de Nemours & Co., Inc.,

Dyestuffs Department, WILMINGTON DELAWARE 8 Thomas St., New York, N. Y.



DRU

Annatt Seed Carmin Cochin Gambie Indigo Oude Guat Kurp Made

Madde Nutga Chin

Hotelude Archi Tri Con

Coal-Tar Dyes

Schaeffer's Salttb.	.70	75
Thiocarbanilide	.40	45
p-Toluene Sulfonamidefb.	.40	43
p-Toluene Sulfonchloridetb.	.15	- 25
Toffdinetb.	1.20	- 1.25
Sulfate	1.00	- 1.10
Toluldine, Mixedtb.	.30	32
o-Toluidinetb.	.20	22
p-Toluidine	1.10	-1.25
m-Toluylenediamine	1.05	- 1.10
Triphenyl Phosphate	.75	80
Xylidinefb.	.40	- 45

Coal-Tar Dyes

ACID COLORS:		
Black	.80	- 1.10
Bluetb.		- 3.00
Browntb.	.80	- 1.25
Fuchsintb.	1.50	
Green th	1.75	- 3.00
Orange IIth.	.45	50
Orange III	.50	- 40
Redb.		- 3.40
Scarletb.	.65	- 1.00
Violet	1.60	- 3.50
Azo Yellowtb.		
Azo Yellow, green shade	1.50	- 2.00
Brilliant Delphine B.S	1.35	- 1.80
Erythrosin	3.50	
Fast Light Yellow, 2-Gtb.	7.50	
Fast Red, 6B extra, con't	3.00	
Indication con tID.	1.10	- 1.20
Indigotin, conetb.	2.40	- 2.75
Indigotin, paste	1.50	- 1.60
Naphthol Green	1.50	- 1.60
Naphthylamine Redtb.	6.75	-7.25
Orange, R. G	.55	80
Patent Blue, Swiss Typetb.		— 6.00
Ponceau	.80	90
Scarlet 2R	.68	70
Tartarzin, Domtb.	1.20	- 1.50
Uranine	8.00	- 9.00
	1.50	- 4.00

DIRECT COLORS.	Alizar
Black Sky Blue, conc	Alizar Alizar Chrom Chrom Chrom Chrom Chrom Chrom Basic Alkali Auran Bisma Bisma Bisma Chrys Chrys Chrys Crysta
OIL COLORS:	Emera
Black	Fuchs Fuchs Malac Malac Methy Methy
SULFUR COLORS:	Methy Methy
Black fb. .20 — .25 Blue fb. .60 — 1.00 Brown fb. .35 — .60 Green fb. .100 — 1.75 Yellow fb. .78 — 1.00	Nigro Nigro Phosp Rhoda Safrar
CHROME COLORS:	Victor Victor
Alizarin Blue, bright	Victor Victor Victor Victor Victor Violar

Alizarin Red, 20 p.e. Paste. ib.	.60	- 1.00
Alizarin Yellow G	.85 1,25	- 1.00 - 1.86
Alizarin Yellow R	.55	
Chrome Black, Domfb.	.75	65 - 2.00
Chrome Blue	.80	- 2.00 - 1.00
Chrome Green, Domfb.	1.50	- 1.00
Chrome Red	1.75	- 2.00
Chrome Yellow	.65	- 1.00
Gallocyanintb.	2.30	- 2.60
BASIC COLORS:		
Alkali Blue, conctb.	4.50	- 5.00
Auramine O	2.00	- 2.25
Auramine OOtb.	2.50	— 3.00
Bismarck Brown R	.70	80
Bismarck Brown Gtb. Brilliant Green Crystalstb.	1.00 2.25	- 1.10 - 2.50
	.75	80
Chrysoidin Rtb.	.75	80
	3.00	
Crystal Violet	2.25	- 2.50
Indigo 20 p.c. paste	.45	50
Fuchsin Crystals, Domfb.	3.00	- 3.40
Fuchsin Base	3.00	- 3.50
Malachite Green, Crystals.tb.	1.60	- 1.65
Malachite Green, Powdtb.	1.50	- 1.55
Methylene Blue, tech tb.		- 2.00
Methylene Blue, tech	1.75	- 2.00
Methyl Violet, 4Btb. Methyl Violet, 6Btb.	0.77	- 1.35 - 3.25
Methyl Violet, 6B		
Nigrosine, spts. sel	-	70
Nigrosine, water sol., blue.tb.		
Phosphine G., Domesticfb.	2.50 8.00	- 3.50 -10.00
Rhodamine B. ex. con'tlb. Safranine	2.50	- 3.00
Victoria Blue B	2.75	- 3.75
Victoria Blue, base, Dom. fb.	3.50	- 4.50
Victoria Blue, crys	3.50	- 4.50
Victoria Greenb.	2.00	- 2.10
Victoria Red	7.00	8.00 8.00
Violamine R & B	4.00	- 5.00
i violamine a d Difficultino		

ANTHRAOUINONE

SUBLIMED SUBLIMED PASTE

Sanborn **Chemical Works**

PUTNAM, CONN.

ALL GRADES, SPOT OR TO IMPORT

Refined Naphthaline Cresol, U. S. P. (FLAKES)

Phenol, U. S. P. Crude Naphthaline

WILLIAM E. JORDAN, Inc.

№ 13 CLIFF STREET, NEW YORK

Phone Beekman 1758

Cable, Danjor

COAL TAR DISINFECTANTS

Any size container from 5 oz. bottle to tank cars Phenol co-efficients 2-5-6-10-20

CRESOL U.S.P. 1X

COMPOUND SOLUTION CRESOL **U.S.P. 1X**

CRESYLIC ACID 97/99% PALE

BAIRD & McGUIRE, Inc.

Holbrook, Mass. U. S. A.

P.O. Box 473

The

Chemical Co. of America, Inc.

Dyestuff Manufacturers

46 MURRAY STREET New York City

> FACTORY: Springfield, N. J.

BRANCH OFFICES:

Providence

Philadelphia

1.00 1.00 1.35 .65 2.00 1.00 3.00 2.00 1.00

5.00 5.25 5.00

Dyestuffs

Natural Dyest	uff	S	
natto, finetb.	.27	_	.30
eedtb.	.04	_	.05
mine No. 40tb.			
nbier, see tanning.			1
igo, Bengal	1.90		
uatemalatb.	1.50	-	1.60
adrastb.	.85	_	.95
ider, Dutchtb.	.25	-	.27
galls, blue Aleppotb.	.14	=	.15
reitron Bark, see tanning. meric, Madras	.063	4-	.061/2
leppytb.	.00	_	.0094

Dyewoods

Barwoodfb.	.05	-	.051/2
Camwood, chipstb.	.10	_	.14
Fustic, stickston	35.00	-3	7.00
Chipstb.	.04	-	.06
Hypernic, chipstb.	.063	5	.07
Logwood Stickston		-3	0.00
Chipstb.		-	.03
Quercitron Bark, see tanning Red Saunders	.12	_	.13

Dye Extracts

Note:	Range	of	pr	for	on dy	guan	racts	in	•
Archil.	Double				tb	20	-	.33	
Conce	ntrated	****	•••	• • • • •	10	24	_	27	,

Cutch, Mangrove, see Tanning Rangoon, boxes	.10	-	.18
Cudbear, French			
Englishtb.	21	Ξ	.23
Concentratedb.	-		_
Flavinetb.	.90	_	1.25
Fustic, Solidtb.	.18	_	.26
Crystalstb.			.26
Liquid, 51 deg	.11	-	.15
Galltb.	.16	_	.18
Hematine Extract 51 deg tb.	.113	4	.131
Crystalstb.			.27
Hypernic, liquid, 51 deg tb.	.15	_	.22
Logwood, solidb. 51 deg., Twaddletb.		=	
Osage Orange, Extract 42 deglb.	.09	_	.16
Crystals	-	_	.17
Persian Berriestb.	.27	_	.30
Quebracho, see tanning,			
Quercitron, 51 deg	.06	_	.07
Powdered, 100 p.c	.09	_	.13

Miscellaneous Dyestuffs

Albumen, Egg, edibletb.			.75
			.50
Blood, importedb.			.45
Domestictb.			
Prussian bluetb.			.50
Solubletb.	.45	_	.50
Spray yolktb.			.45
Turkey Red Oiltb.			-11
Yolk Oiltb.	-	_	.35
Zinc Dust, prime heavy			.11
100-lb, tins			.11
520-1b. casks			.105
Carload lotsfb.	-	-	.093

Dextrins and Starches

3/4
34
1/2
14
3
-
֡

Tanning Woods

Algarobillaton	_	
Divi Divieon	34.00	-36.0
Hemlock Barkton	16.00	-18.0
Mangrove, African, 38 p.cton		-35.0
Bark, S. Aton	_	
Myrobalans, J1ton	_	-25.0
J2ton		-20.0
B1ton	-	-24.0
B2ton	_	-19.0
R2ton	_	-17.0
Oak Barkton	20.00	-23.00
Groundton	_	-25.0
Quercitron Bark roughton	-	-10.0
Groundton	20.00	-25.00
Sumac, Sicily, 28 p.c. tonton	55.00	-58.0
Virginia, 25 p.c. tanton	-	-35.00
Valonia Cups 28-33 p.cton	31.00	-35.00
Beard 40 p.cton	40.00	-42.00
Wattle Barkton		
		70000

NICHOLS COPPER CO.

Refiners of Copper

Manufacturers of



Copper Sulphate

(Blue Vitrioi)

Guaranteed 99% Pure

Its high copper content makes for economy and the best service.

25 BROAD STREET, NEW YORK

Telephone Broad 2620

Cable "ACIDSMELL"

VICTOR CHEMICAL WORKS

New York

CHICAGO Nashville St. Louis

Manufacturers of

ACIDS
FORMIC
OXALIC
PHOSPHORIC

Baking Powder Chemicals
Ammonium Phosphate

EPSOM SALTS

Technical

U.S.P.

Di

Palm Bo Ni Palm Im Pear Cr O Cr Peri

Bb Popp Rape Ble

Sesa

Wal

Fixed Oils

Tanning Extracts

Chestnut, clarified, 25 p.c. tan,	010/	00
tanks, f.o.b. wkstb.	.013/4—	
Powdered, 60 p.cb.	.0634-	-
Decolorizedtb.	.09 —	.091/2
Gambier, 25 p.c. tan liqtb.	.061/2-	.07
Commontb.	.051/2-	.0534
Cubes, Singaporetb.	.07 —	.071/2
Hemlock, 25 p.c. tan workstb.	.04 —	.0474
Larch, 25 p.c. tantb.	.033/4-	.04
Crystals, 50 p.c. tanfb	.08 -	.0834
Mangrove, 55 p.c. tantb.	.061/4-	.061/2
Myrobalans, liq., 25 p.c.tan ?b.	.05%-	.051/2
Solid, 50 p.c. tantb.	.061/2-	.07
Oak Bark, liquid, 23-25 p.c.tantb.	.05 —	.0544
Tankstb.	.041/3-	.043/4
Quebracho, liquid, 35 p.c. tks. tb.	.031/2-	.0344
Barrelstb.	.04 —	.041/4
35 p.c. tan, bleaching	.041/2-	.05
Solid, 65 p.c. tan ordinary fb.	.041/2-	.043/4
Clarifiedtb.	.05 —	.051/4
Spruce, liquid, 25 p.c. tan,		
works, tanks	.01 —	.013/4
Powd., 50 p.c. tan	.02 —	.021/4
Sumac, liquidtb.	.07 -	.09

Animal and Fish Oils

(Carload	is)
Cod Newfoundland	gal4446
Tanks	
Domestic, prime	gal
*Degras American	
English	
Neutral	fb06 — .07

1	*Herring, N.Y. bblsgal. Horseb.		=	.45
- 1	Lard primegal.		_	
	Off primegal.	.83		
- 1			_	
- 1	No. 1gal, Extra, No. 1gal.	.70		
	No. 2			
.	No. 2gal. Menhaden, Light strained gal.		-	
6	Mennaden, Light strainedgal.			.48
	Yellow, bleachedgal. Extra, bleached, winter.gal.			.50
4	Extra, bleached, winter.gal.		_	
	Blowngal.			.57
2	*Crude, f.o.b. works, bbls.gal.			.40
4	*Tanks, wksgal.			.36
•	Neatsfoot, 20 deggal.			1.32
	30 deg., cold testgal.			1.20
4	Puregal.			1.05
6	Oleo Oil, No. 1b.		_	
	No. 2tb.	_	_	.093/4
6	*No. 3tb.			.09
	Red Distilledb.			.071/2
6	Salmon, tanks, Coast gal.			.34
4	Saponifiedtb.	-	_	.08
	Sodgal.	_	_	.44
4	Sperm bleached winter			
4	38 deg., cold testgal.			1.70
	45 deg., cold testgal.	-	-	1.65
4	Stearic Acid, single pressed. tb.			.091/4
	Double pressedtb.			.10
4	Triple pressedtb.	.103	2	.11
٦.	Tallow acidless, tanks gal.	.68	-	.70
4	Barrels, c.lgal.	.75	_	.77
	Whale, natural winter gal.			.65
4	Rleached, wintergal.	-	_	.70
	Crude, No. 1 tanks, Coast. ib.	.05	-	.051/4
- 1	No. 2tb.			_

Greases, Lards, Tallows

	(N	w	Y	or	k	M	arkets)		
Grease,	Choice	W	Thi	te			tb.	.071/-	.073/4
Yellow							tb.	.05 -	
Brown	******						tb.	.043/4-	.05
								.043/4-	.05
Bone !	Naphtha	1 .					tb.	.041/2-	.043/4

i	Lard City, Steam		.0014
П	Compound	.10 —	.104
1	Stearine, lardtb.		
ı	Oleotb.	.08 -	
1	Tallow, edibletb.	.08 —	.0814
ı	City, Special, loose	.06 -	.0614
ı	(Chicago Markets)		8
1	Tallow, edibletb.	.071/4-	.0714
1	City Fancytb.	.063/4-	.07
I	Prime Packerstb.	.061/2-	.0644
1	Grease, Choice White 1b,	.061/2-	
1	"B" Whitetb.	-	.0514
1	Yellow	.043/4	.05
1	Browntb.	.04 -	.0414
1	Bone	.033/4-	.04
1	House		.0414
	Stearine, prime Oleo	.07%-	
	Lardtb.	.081/8—	.0934

Vegetable Oils

Cases		.12%
No. 3tb.	.101/2-	.104
China Wood Oil, bblstb.	.131/4-	_1314
*Coast, bblstb.		.121/2
Orient to N. Y., bbls tb.	.101/2-	.11
Coconut Dom., Ceylon, bbls 1b.	.081/2-	.00
*Tanks, Spot fb.		.073/4
Cochin, bbls., Domfb.	.091/2-	.10
*Tankstb.	.081/2-	.0834
Manila, tanks, coast tb.	.073/4-	.08
Edibletb.	.11 -	
Copra, c.i.f., N. Yb.	.041/2-	
Corn, refined, bblstb.	.10 —	.10%
Crude Tanks Shipping pt.fb.	.063/4-	
Barrelstb.	.071/2-	
Crude, bbls., N. Ytb.	.081/2-	
*Cottonseed, Crude, f.o.b. mills	000/2	100
in buyers' tankstb.	.073/8-	.0714
Prime Summer, Yel. bblstb.	.09 —	
*White		
Winter, yellow	.101/4-	
*Nominal	010/4	12073



LACTIC ACID

"TECHNICAL" Strengths 22% & 44%

You will be interested in this quality product. Of uniform strength, its freedom from mineral acids, heavy metal salts and sediment makes our Lactic Acid a most desirable product for every use.

National Oil Products Co.

Harrison, N. J.

Chicago, Ill.

Warehouse

Milwaukee San Francisco Los Angeles Peabody Toronto Gloversville

THE NEW BRUNSWICK CHEMICAL CO.

552 Pe arl Street

New York City



....

Compounds

Essential to Dyeing, Finishing and Sizing

TRY

TERPOL HYDRATE

For Penetration, Thin Boiling Smoothness and Elasticity on

Cotton Warps and Yarns

WHERE STARCH IS USED

Write for Information

Naval Stores and Fertilizers

Linseed, raw car lotsgal.		77
10 barrel lotsgal.		78
Boiled, 5-bbl. lotsgal.		.82
Double boiledgal.		.83
Raw tanksgal.		.72
English, Shipments, bbls.gal.		6614
Olive, denaturedgal.	1.10 - 1	15
Ediblegal.	1.60 - 2	
Footstb.		.081/4
Shipmentb.	.08 —	.0834
Palm Lagos, caskstb.		.08
Bonny Old Calabartb.	.0634-	.07
Nigertb.	.061/2-	.063/4
Palm Kernel, domestic tb.		-
Importedtb.	.083/4-	.09
Peanut Oil, refined tb.	.11 -	1134
Crude, f.o.b. mills tanks tb.	.073/4-	.08
*Oriental, coast, tanksfb.	.08 —	0854
*Crude, Bbls., spot		091/2
Perilla, c.i.f., N. Yb.		091/2
Bbls., N. Ytb. Poppy Seedgal.	.101/2	1034
Poppy Seedgal.		
Rapeseed, ref'd bblsgal.	.85	86
Blown, bbls., 8 lbsgal.	.95 - 1.	06
Sesame, domestic, edible gal.	1.15 - 1.	20
*Importedtb.		_
Soya Bean, tanks Coast, Feb. fb.	.071/4-	071/2
New York, bbls., crudetb.	.101/2-	093/4
Edibleb.	.101/2	103/4
Teaseed, crd., bbls		127/4
Walnut, Crudetb.	.10	101/2
		1.
OIL CAKE AND MI	EAL	- 1.
Cottonseed Cake, f.o.b. Texas		_
f.o.b. New Orleans		- 1
Cottonseed, Meal, f.o.b. Atlanta		00
Columbia		
New Orleanston	= = :	=
Corn Cakeshort ton		=
Meal Chicagoshort ton	30.	NO I
Linseed cake, domshort ton 4		
Linseed Mealshort ton		_

Naval Stores

Spirits Turpentine, in bbls.gal. Wood Turpentine, steam dis- tilled, bbls	1111111111		.935 6.00 5.30 5.35 5.35 5.35
tilled, bbls. gal. Destractive distilled, bbls.gal. Pltcb Prime bbl. Rosins, B E F G H I K M	11111		5.30 5.35 5.35 5.35
Pitch Prime	11111		5.30 5.35 5.35 5.35
Rosins, B D F F G H I K M	11111		5.30 5.35 5.35 5.35
D			5.35 5.35 5.35
F G H I K	===	=	5.35 5.35
F G H I I	=	=	5.35
G H K M	_	_	
H I K	_		
ї К М			5.35
K M		-	5.40
M	-	-	5.40
	-	_	5.95
N	-	_	6.65
			7.00
WG			7.25
WW	-	_	7.75
Rosin Oil, first rungal.	36	_	37
Second rungal.		_	
Far, kiln-burntbbl.		-1	
Retortbhl.		_,	

Flor Ten: Phosp Potass Sulf	ida pebble, 68-72%ton nessee, 78-80 p.cton hate, Acid, 16 p.cton sium muriate, 80 p.cunit ateunit ed Bone Meal, N.Yton	5.00 8.00 .7:
	Metals	
98-99 Antim	num 98-99% Virgincwt. 10% Remeltedcwt. 10ny, Jap. & Chinese.cwt. 10ny, (See Fine Chemical Prumb.	4.45

Fertilizer Materials

Ammon. Sulf. bulk100 fbs. Double bgs., f.a.s., N.Y.100 fbs.	2.25	=	2.30
Blood, dried, f.o.b. N.Yunit Bone, 3 and 50, ground, raw.ton	-	_	3.75
Raw, Chicagoton Cyanamide wksunit	_	-2	5.00
Fish Scrap, dom., drled, f.o.b. worksunit Nitrate Soda100 fbs.			
Tankage, high-grade, f.o.b. Chicago	3.25	&	.10

THE CLEVELAND-CLIFFS IRON CO.

KIRBY BUILDING, CLEVELAND, O.

PRODUCERS OF

Wood Alcohol Acetic Acid Formaldehyde Pure Acetone

Methyl Acetone Sulphuric Acid Sodium Acetate Iron Liquor

DISTRIBUTING POINTS

Cleveland New York Cincinnati Boston Newark Brooklyn

Marquette Antrim Chicago

Detroit Minneapolis Gladstone

DR

Orange

Prick!

Pomeg

Simart

Soap, Cut Cru Por

Wahoo

Willow

White

White Wild

Witch

Calaba

Cassia

St. Ig

Para Surii Vanill

W

Crude Drugs

Hops, N. Y., prime.....tb. Pacific Coast, prime.....tb. Crude Drugs Isinglass, American (see Agar Agar) MISCELLANEOUS Russiantb. - .83 - .75 - .55 Kamalatb. Agaric, whiteb. Almonds, bitterb. Lupulintb. Manna, large fiaketb. Ambergris, blackoz. - - 8.00 - -25.00 Small flaketb. .50 -Greyoz. Sortstb. .08 — .08½ — — .12 Moss, Icelandtb. .08 -Balm of Gilead Buds...........tb. .45 - .50 Irish, Bleachedtb. .00 ---Burgundy Pitch, Dom tb. .05 Musk, pods, Cabardine.....oz. 16.00 -17 Cantharides, Chinese bb. 1.00 - 1.05 Powdered bb. - 1.10 Russian, whole bb. - 2.50 Powdered bb. - 3.00 Cascara Amarga bb. - 5.0 Tonquinoz. 17.00 -19 Grain, Cab.oz. 25.00 -26 Tonquinoz. 32.00 —33 Synthetic, See Aromatic Chemicalsb. Nux Vomica, wholetb. Powderedtb. Quassia Chipstb. Sandalwood, Chipstb. Groundtb. Spermaceti, blockstb. -30 —

				_
١	BALSAMS			
١	Copaiba, Para	.30	_	.31
١	Oregongal.			
	Perutb. Tolutb.	.30	Ξ	1.50 .35
	BARKS			
	A		*	.25
	Angostura			.14
	Basswood Bark, pressedtb.			.28
	Barberry (tree)tb. Bayberrytb.			.12
	Blackhaw of Root			.26
	of Treeb.		_	
	Buckthorntb.		-	.07
	Canella albatb.	_	_	.57
	Cascara Sagradatb.	.11	_	.14
	Cascarilla, quillstb. Siftingstb.	.20		.35
	Chestnut		=	.45
	Yellow, U.S.P	.17		.18
	Condurango	_	_	
	Cotton Roottb.	.14	_	
	Cramp (so-called)tb.			.09
	Cramp (true)b.		_	
	Dogwood, Jamaicatb. Elm, Select, bdlstb.	.30		.09
	Grinding	.12	_	.14
	Grinding		-	
	Fringe Treetb.		_	
	Hemlock	_		
	Mezereontb.		_	

PARIS WHITE CRUDE CHALK TALC

Finest Genuine French Imported

D. Vecchini

149 BROADWAY

NEW YORK

Sole American Agent For Société Commerciale De France Et D'Outre-Mer, Paris.









Crude Carbolic-Creosote Oils

ALL STRENGTHS AND PURITIES CRUDES, CHILLED, DEODORIZED Spot Deliverles

Protexol Corporation 39 Barclay Street, New York-Works: Kenilworth, N.J.

CHURCH & DWIGHT Co.

80 Maiden Lane New York

Bicarbonate of Soda Sal Soda Monohydrate of Soda

MANUEL GREY

Importer of

Pharmaceutical Products and Fine Chemicals

Av. F. I. Madero 42 MEXICO CITY P. O. Box 1208 MEXICO

I am desirous of acting as sole REPRESENTATIVE in the REPUBLIC OF MEXICO, of reliable foreign manufacturers of Pharmaceutical Products, Fine Chemcals, Perfume y etc.

ESTABLISHED 1916

Correspondence in Spanish-English and French

Crude Drugs

Orange Peel, bitterfb.		BERRIES		GUMS	
Prickly Ash, Southern		Cubeb, ordinary	.90 - 1.00	Aloes, Barbadostb.	50
Northern		XXtb. 1.	.00 - 1.10	Cape	.08 — .09
Pomegranate of Root	.17 — .1		-90 - 1.00	Curacao, casestb.	.061/207
of Fruittb.	-171		.06½— .07	Socotrine, whole	40
Sassafras, ordinarytb.	1		.3540	Ammoniac, tears	1.60
Selectlb.	.232		04	Arabic, firststb.	.26 - 27
Simarubatb.	1	Poketb.	08	Secondstb.	.22 — .23
Soap, wholetb.	.051/20		$\frac{-}{.11}$ $\frac{-}{.12}$	Sorts Ambertb. Powdered, U.S.Ptb.	.101/2 .11
Cuttb.	.091		.35 — .40		.19 — .22
Crushedtb.			12 — .13	Asafetida, whole, U.S.Ptb.	.30 — .33
Powderedtb.		Sloelb	1415	Powderedtb.	.60 — .65
Wahoo of Roottb.				Benzoin, Siam	- - 1.50
of Treetb.	.25 — .2	FLOWERS			.28 — .29
Willow, Blacktb.	0	Arnicatb	.1112	Camphor, ref., See Fine chem. 1	
Whitetb.	1	**	28	Catechutb.	10
White Pine Rossed 1b.	0		50	Chicletb.	.75 — .80
White Poplar	0		19 — .21	Damartb.	.23 — .24
Wild Cherry— Thin Green Rossed	16 11		90	Euphorbiumtb.	35
Thick Rossedtb.	.1618		1011	Powderedtb.	− − .55
Thin Naturalth.	.0910		1516	Galbanumtb.	1.10 - 1.20
Thick Naturaltb.	.0607	Elderb.	2325	Gambiertb.	.07071/2
Witch Hazeltb.	08		28 — .32	Gambogetb.	1.00
				Guaiactb. Karaya, Powderedtb.	.28 — .40
BEANS			39 — .42	Kinotb.	50
		The state of the s	25	Mastictb.	55
Calabartb.	.18 — .20		<u> </u>	Myrrh. Selecttb.	.4344
Cassia Fistulatb.	12		25 — .40 12 — .13	Sortsb.	.40 — .42
	— — .0a		2223	Olibanum, siftingstb.	.10 — .101/2
St. Ignatiustb.	22		38	Opium, See fine chem, list	.15 — .16
St. John's Bread	.06 — .09			Sandaractb.	.2325
Tonka, Angostura	— − 1.25	Mulleintb	60	Scammony Resin	1.40
Parab.	.8090	Orangetb	45	Senegal, pickedtb.	.1617
Surinamtb.	.85 — .95	Peony, redtb	45	Sprucetb.	─ ─ − 1.00
Vanilla, Mexican, wholetb.	8.00 - 8.50		50	Storax, Tech. cases, See Misc'l. Thus	.04½— .05
Cutsib.	7.00 - 7.50 $3.00 - 3.25$	Saffron, American		Tragacanth, Aleppo firsttb.	2.50 - 2.60
South American	5.00 - 5.50		70		1.00 - 2.50
Tahiti, Yellow Labeltb.	- 2.00	Tilia (see Linden)	,,	Powderedb.	
Green Labeltb.	2.00	*Nominal		Turkishtb.	



Epsom Salt

Magnesium Sulphate U.S.P.

Improved plant processes have placed us in a position to offer Epsom Salt, U. S. P. that is unsur-

passed in quality. Dow Epsom Salt, U. S. P., is remarkable for its physical appearance and for its freedom from chem-

No doubt it will be of interest to users of Epsom Salt to know they can procure quantity supplies

No doubt it will be of interest to users of Epsom Salt to know they can procure quantity supplies of this essential at very reasonable prices, and be assured of real service on deliveries. To facilitate less carload deliveries, stocks are carried in warehouses at New York, Boston, Rochester, St. Louis, Kansas City, Cincinnati, St. Paul, Toronto and Montreal.

Dow Epsom Salt, U. S. P., is generally packed in 300-lb. barrels and 125-lb. kegs, but may be had

in 100-lb. bags.

We can also supply Technical Epsom Salt of unexcelled quality and low Chloride content to meet requirements of leather and other industrial manufacturers.

Write for representative sample and quotation on carload or less than carload lots.

THE

Midland, Mich.



CHEMICAL CO.

90 West St., NewYork

DRI

Ginge Sinse N Sold Pov

> Helo Ipeca

> Rical For Kava Lady Lico Sp. Man Mus Orri

Crude Drugs

SHELLAC				Laureltb.	.031/2-	.041/2	ROOTS			
D. Ctb.	_	_	.82	Life Everlasting	.06 —	.07	Aconite, U.S.Ptb.	.20	_	.21
Fine Orangetb.	_	_	.75	Liverworttb.		.26	Aletris (Unicern true)tb.	.34	_	.35
Second Orangetb.	_	_	.70	Lobeliatb.	.10 —		Alkanettb.	.16	-	.17
T. Nb.	.66	_	.68	Maticob.		.20	Althea, cuttb.	.10	_	.11
Ground regtb.	_	_	.70	Marjoram, German		.21	Wholetb.	.08	_	.09
Regular bleachedtb.	_	_	.75	Frenchtb.	.12		Angelica American	.15	_	.17
Bone Drytb.	-		.76	Motherwort Herbtb.			Arnicatb.	.25	_	.28
LEAVES AND HE	RBS	3		Pennyroyal	.08 —		Arrowroot, Americanfb.	.06		.08
Aconitetb.	.28	_	.30	Pichilb.	.10 —		St. Vincent, Powdtb.	.06	_	.08
Balmonytb.	-	_	.14	Prince's Pine	= =	***	Bamboo Briertb.	_	_	.06
Belladonnatb.	.11	-	.14	Pulsatillab.			Bearsfoottb.	-	_	.06
Boneset, leaves and topstb.	_	_	.09	Queen or the Meadowlb.			Belladonnatb.	.12		.14
Buchu, Shorttb.	1.05	_	1.07	Rose, pale and redtb. Rosemarytb.	.25 -		Berberis Aquifoliumtb.	.17		.18
Longtb.	_	_	1.00	Rue	.25 —	-30	Beth ib.	.17	=	.18
Cannabis, true, importedtb.	-	-	_	Sage, Dalmatian	.051/2-		Blueflagtb.	.26	_	.30
American, (no assay)tb.	_	_	.20	Greektb. Spanishtb.	.031/2-		Bryoniatb.	.10		.12
U.S.Ptb.	-	-	.30	Savory	.10 —		Burdock	.10	-	.11
Catniptb.	.10	_	.15	Senna, Alexandria, wholetb.	.58 —		Calamus, bleachedtb.		-	.45
Chestnuttb.	_	_	.06	Half Leafb.	.13 —		Unbleached, naturalfb.	.10	-	.11
Chirettatb.	.20	-	.21	Siftings	.10 —		Cohosh, blacktb.	.08		.09
Coca, Huanucotb.	_	-	-	Powderedtb.	.14 —		Bluetb.		-	
Truxillotb.	-		.50	Tinnevelly, Jobbingtb. Grindingtb.	.12 -	.14	Colchicum	.13		.15
Coltsfoottb.	_	_	.08	Podstb.		.071/2	Colombo, wholetb	02		.04
Corn Silktb.	-	_	.06	Powderedtb.	.08 -	.10	Comfreytb.	.20		.22
Damianatb.	.10	_	.11	Sideritis, cuttb.		.19	Culver'stb.	.17		.18
Deer Tonguetb.	_	_	.08	Skullcap, Western	==	.20	Cranesbilltb.	.12		.14
Digitalistb.	.09	_	.10	Squaw Vine	.14 -	.15	Dandelion, Imported	.083		
Eucalyptustb.	-	_	.051/2	Stramoniumtb.	.12 —	.13	Doggrass, U.S.P., cuttb.	.09	-	.10
Euphorbia Piluliferatb.	.11	_	.12	Tansytb.	.16 —		Echinaceab.	_	_	.35
Grindelia Robustatb.	-	_	.10	Thyme Spanish	.07 —	.071/2	Elecampane	_		.10
Henbanetb.	.22		.24	Uva Ursi			Galangalb.			.09
Hennatb.	.17		.18	Witch Hazeltb.		.09	Gelsemiumtb.	.12		
Horehoundtb. Jaboranditb.	.09	_	.091/2	Wormwood, imported	.10 —	.12	Gentiantb.	.08	_	.081/2
300000000				terna Santa		.14	Nominai			



BROMIDES

POTASH

SODA

BARIUM NITRATE PERMANGANATE OF POTASH CARBON TETRACHLORIDE We offer for PROMPT Delivery
BRUCINE SULPHATE
(suitable for Formula No. 40)
SCAMMONY RESIN
ROCHELLE SALTS|
POTASSIUM SULPHO-GUAIACOLATE
GUAIACOL CARBONATE
STRYCHNINE SALTS
MERCURIALS, etc.

MAY & BAKER, L^{TD.}

Manufacturing Chemists and Exporters

BATTERSEA, LONDON ENGLAND

Cable Address: BISMUTH, LONDON

Do You Want European Business?

THE REVUE DE PRODUITS CHIMIQUES has the largest circulation of any chemical paper in Western Europe. Its rates are reasonable and it is read by the people you want to sell. For information address:

54 Rue de Turbigo, Paris, France.

.21 .35 .17 .11 .09 .17 .28 .08 .06 .06 .14 .18 .15 .30 .12 .11 .45 .11

.04 .22 .18 .14 .09 10 35 10

Seeds and Spices

		1			
Ginger, Jamaica	.35 — .40	Senegab. Serpentariab.	.75 — .80 — — .90	Foenugreektb.	, -
Ginseng, Cultivatedtb.	1.00 - 3.00	Skunk Cabbagetb.	.2021	Hemp, Manchuriantb.	$.03\frac{1}{4}$ $03\frac{3}{4}$
Northwestern wild fb.	6.00 - 8.00	Snake, Canada naturaltb.	.3031	Chiliantb.	
Southern wild	5.00 - 7.00	Strippedtb.	45	Job's Tears, white	071/2
Gold Sealtb.	- $-$ 3.00	Spikenardtb. Squill, whitetb.	.17 — .18	Larkspur ,tb.	17
Powderedtb.	3.85 - 4.00	Stillingia	.09 — .10	Lobeliatb.	70
Hellebore, Black, Imported tb.	22	Stonelb.	10	Mustard, Bari, Brown	10
Whitetb. Powderedtb.	12	Turmeric Madras	.06061/2	Bombay, Brown	061/2
Helonias (Unicorn false)lb.	15	Aleppy	.06 — .06½	California, Browntb. Yellowtb.	.043405
	45	Unicorn false, See Helonias	.06 — .061/2	Chinese, Yellowtb.	.04 — .05
Ipecac Cartagena	1.25 - 1.30 $1.60 - 1.65$	True, See Aletris		English, Yellowtb.	.051/206
Rio wholeth.	1.00 - 1.05	Valerian, Belgiantb.	10 - 11	Danish, Yellowtb.	.05051/2
Powderedtb.		Yellow Docktb.	15	Dutch, Yellow	.05 — .051/4
Jalap, wholetb.	.15 — .17	Yellow Parillatb.	30		
Powdered, U.S.Ptb. Kava Kavatb.	.2325	SEEDS		Poppy, Dutchb.	.121/213
Lady Slippertb.	.65 — .70			Turkishtb.	081/4
Licorice, *Russian, cutlb.		Anise, Levanttb.	21 15	Blue Indiantb.	.041/2 .05
Spanish natural bales	.0607	Spanishb.	.151/216	White Indianb.	.07071/2
Selectedtb.	.2528	Annattotb.	.03031/2	Quincetb.	1.55 - 1.60
Powdered	.09½— .10	Canary, Moroccotb.	051/2	Rape South Amertb.	.04 — .05
Manaca	20	South Americantb.	.031/2	Japanese, smalltb.	— — .08
Mandraketb.	.1112	Caraway, Africantb.	.07071/2	Sabadillatb.	11
Musk, Russian		Dutchtb.	.071/208	Stavesacretb.	23
Orris, Florentine bold	.08 — .09	Cardamom, bleachedfb.	.80 1.20	Stramoniumtb.	14
Powdered	.09 — .11	Decorticatedb.	.38 — .40	Strophanthus, Hispldus fb.	
Fingerstb.	.8085	Celeryb.	.131/4 .131/2	Kombetb.	35
Pareira Brava	23	Colchicumb.	.14 — .16	Sunflower, domestic	.051/4 .051/4
Pellitory	$\frac{-}{.75}$ $\frac{-}{.80}$	Morocco Unbleachedtb.	.051/206	South Americantb.	.031/204
Pleurisytb.	19	Bleachedtb.	.081/209	Worm, Americantb.	.1011
Poketb.	.07071/2	Cumin, Levanttb.		*Levanttb.	1.85
Rhatanyfb.	.10 — .11	Moroccotb.	.101/2 .11	Levant	2100
Rhubarb High Driedtb.	55	Dill	.051/2 .06	SPICES	
Powderedtb.	.6065	Fennel, French	$.1112$ $.11\frac{1}{2}12$	Cassia Budstb.	10
Sarsaparilla, Hondurastb.	.45 — .50	Flax, wholeper bbls.	11 25	China, Selectedtb.	.051/2 .07
Mexicantb.	.4344	Ground	.053406	Saigon, assortmenttb.	.2325
Scammony Roottb.	.051/206	*Nominal	100	Cinnamon, Ceylontb.	.1718

What Was the Price on September 1st, 1917?

The Spot New York price on 180 leading chemicals, intermediates, drugs, fatty and essential oils, quarterly from August, 1914 (prewar), to December, 1921, in a table—6,000 quotations for ready reference.

Graphic charts showing the price movements—better than an index number because plainer and less misleading.

DRUG & CHEMICAL MARKETS PRICE CHART AND TABLE

One copy complimentary to our regular subscribers Additional copies 50c each, 3 for \$1, postage paid Remittance with order.

Printed in two colors on cardboard for hanging.

Drug & Chemical Markets

3 Park Place

New York City

DRUG

Sandal

West Sassafr Artif Savin Spearm Spruce Tansy, Tar, b

Thyme

Wine,

Worms

Wormy Ylang Man Artif

Aspidi Capsic Cubeb Ginger Malefe Mullel

Pepper Vanill

Essential Oils

Cioves, Zanzibar th. Amboynas th. Penang th. Ginger, African th. Jamaica, grinding th. Japan th. Cochin ABC and lemon th. Mace, Siauw th. Banda, No. 1 th. Batavla th. Nutmegs, 110s th. 75s-80s th. Pepper, Black Sing. th. Peppers, Red, Mombasa th. Cherries th. Bombay th. Japan th. Pimento, Select th.	.32½— .34 -48 — .50 .09½— .10 .31 — .39 .38 — .40 .09½— .09; .11½— .33 .37 — .38 .40 — .41 .27 — .30 .17 — .18 .24 — .25 —10 .31 — .32 .20 — .21 .27 — .37 .33 — .33 .34 — .35 .35 — .35 .37 — .38	Peach Kernel (Apricot) 10. 40 - 43	Erigeron bb. Eucalyptus, Australian, U.S.P.b. Fennel, sweet, U.S.P. bb. Geranium, Rose Algerian bb. Bourbon, (Reunion) bb. Turkish bb. Ginger bb. Gingergrass bb. Hemlock bJuniper Berries, rect. bb. Uniper Berries, rect. bb. Lavender Flowers, U.S.P. bb. Spike, Spanish bb. Lemon, U.S.P. bb. Lemongrass, Native bb. Limes, Expressed bb. Distilled bb. Linaloe bb. Mace, distilled bb. Land, Seet broader bb. Linaloe bb. Mace, distilled bb.	.42 1.65 6.00 5.00 	- 5.50 - 3.75 - 6.75 - 2.75 - 7.00 - 1.60 - 3.50 - 1.00 75 - 1.10 - 2.75 - 2.70 - 2.70 - 1.10
WAXES		Cajuput, Nativetb65 — .70 U.S.Ptb75 — .80	Mirbane, ref., see Aromatic Che Mustard, naturaltb.	-	19.00
Bayberry 1b. Bees, white 1b. Yellow, clean 1b. Crude 1b. Carnauba, Flor. 1b. No. 1, North Country 1b. No. 2, North Country 1b. No. 3, Fatty Gray 1b. No. 3, Chalky 1b. Ceresin Yellow 1b. Japan 1b. Montan, crude 1b. Bleached 1b. Ozokerlite, brown 1b. Green 1b. Refined, yellow 1b. Refined, yellow 1b. Refined, yellow 1b. Refined, yellow 1b. Ref'd 118-120 deg. 1b. Stearle Acid, See Animal Oils *Nominal	.20 — .25 .33 — .35 .14 — .16 .12 — .14 .24 — .25 .55 — .56 .45 — .46 .22 — .25 .14 — .15 .07½ — .08 .08¾ — .10 .18 — .20 .04½ — .05 .22 — .24 — .20 .24 — .25 .25 — .20 .24 — .05 .25 — .06½ .04½ — .05	Camphor, by-product	Artificial bb. Neroli, Bigarade oz. Petale oz. Artificial bb. Nutmeg, U.S.P. bb. Orange, bitter bb. Sweet, West Indian bb. Italian bb. Italian bb. Origanum, Imitation bp. Patchouli bb. Pennyroyal, domestic bb. Imported bb. Peppermint Natural, tins bb. Redistilled, U.S.P. bb. Japanese bb. Petit Grain. So. America bb. French bb. Pinus Sylvestris bb. Pinus Sylvestris bb. Pumilio bb. Rose, French oz. Bulgarian oz. Artificial oz.	8.00 10.00 	-25.00 -15.00 - 1.10 - 2.00

ESSENTIAL **OILS OILS**

Aromatic Chemicals

Manufacturers **Importers** Exporters

Correspondence Solicited

FRITZSCHE BROTHERS

NEW YORK

Essential Oils

and

Aromatic Chemicals

for

PERFUMES, SOAPS, **FLAVORING EXTRACTS**

Morana Incorporated

Importers and Manufacturers

GENERAL OFFICES:

118 East 27th St., New York City

CHICAGO: 19 S. LASALLE ST.

WORKS: ELIZABETH, N. J.

Aromatic Chemicals

Rosemary, U.S.Ptb.		
Techtb.		
Sandalwood, East Indiantb.		
West Indiantb.		-4.00
Sassafras, natural	.90	- 1.00
Artificialb.		53
Savintb.		- 4.75
Spearmint	2.50	-2.75
Sprucetb.	-	70
Tansy, Amertb.	-	-7.75
Tar, bblsgal.	.28	30
Refined, U.S.P., cansgal.	-	- 1.00
Thyme, red, U.S.Ptb.	1.00	- 1.10
White, U.S.Ptb.	1.15	-1.20
Vetivert, Bourbontb.	4.75	-5.25
Wine, heavytb.	-	-2.75
Wintergreen, sweet birchtb.	2.00	-2.25
Genuine Gaultheria b.		7.00
Synthetic, U.S.P., bulktb.	.35	40
Wormseed Baltimore	4.25	- 4.75
Wormwood Domtb.	11.50	-12.00
Ylang Ylang, Bourbontb.	12.00	-14.00
Manilatb.		-30.00
Artificialtb.	-	-10.00

Oleoresins

Aspidium (Malefern)tb.	4.00	-4.25
Capsicumtb.	3.00	- 3 25
Cubeb	7.00	-7.50
Gingertb.	3.00	- 3.30
Maleferntb.	4.00	-4.25
Mullein (so-called)tb.	_	5.00
*Orris, domestic		-20.00 -22.00
Pepper, blacktb.	-	-6.00
Vanillatb.	8.75	-10.00

Perfumers' Sundries

Ambergris, blackoz.		- 8.00
Ambergris, grayoz.	-	-25.00
Chalk, precipitatedb. Civetoz.	.023	4033 - 3.00
Lanolin hydroustb.		
Lanolin anhydroustb.		
Musk Cab., podsz.		
Musk, Cab., grainsoz.		
Musk, Tonquin, grains oz.	32.00	-33.00
Musk, Tonquin, podsoz.		
Orris Root, Florentine, wholetb.	.083	209
Veronatb.	00	07
Powdered, Grantb.	.00	10
Rice Starch	20.00	-40.00
Tale, Italianton		
Tale, Frenchton		
Tale, domesticton	17.00	-18.00

Natural Derivatives

1446	 		
Anethol	 tb.	_	— 1.75
Borneol	 tb.	_	- 3.50
Citronellol	 tb.	10.00	-12.00
Citral	 tb.	3.75	-4.00
Eucalyptol	 tb.	.85	88
Eugenol			
Geraniol			
Iso-Eugenol	 tb.	5.00	- 5.25
Linalool	 tb.	6.50	-7.00
Menthol	 tb.	5.25	-5.40
Rhodinal	 tb.	15.00	-16.00
Safrol	 15.	.65	70

Synthetic Aromatics

Syllulette Alomae		
Acetophenone, C.Ptb.	3.50	- 4.00
Amyl Butyratetb.	_	-2.50
Amyl Salicylatetb.	1.20	-1.30
Anisic Aldehyde	4.25	- 4.50
Benzaldehyde, U.S.Ptb.		- 1.40
Benzaldehyde, U.S.Ptb. Free From Chlorinetb.	1.60	- 1.80
Benzyl Acetatetb.	1.25	- 1.50
Benzyl Alcoholtb.	1.25	-1.50
Benzyl Benzoatetb.	1.35	- 1.45
Bromstyroltb.	4.50	- 5.00
Cinnamic Acidtb.		- 3.00
Cinnamic Aldehydetb.		- 4.50
Citronellaltb,	_	- 2.50
Coumarintb.	-	- 3.50
Resaletb.	-	-3.25
Diphenyloxideb.	.80	90
Ethyl Cinnamatetb.	4.75	-5.00
Geranyl Acetatetb.	5.50	- 6.00
Heliotropinb.		- 3.00
Indol, C. Poz.	0.00	-10.00 -10.00
Linalyl Acetate		
Methyl Anthranilate	4.50	-4.75
Methyl Cinnamatetb. Methyl Paracresoltb.	4.75	- 5.00
Methyl Paracresol	10.0C	-12.00 40
Methyl Salicylatetb. Resaletb.	.33	35
Mirhane, rect., drums extra. tb.	.11	12
Musk Ambretteb.	15.00	-16.00
Musk Ketoneb.	2.50	-12.00
Musk Xylene	2.50	-2.75 -2.50
Phenylacetaldehyde	8.00	-10.00
Phenylacetic Acid th.	4.00	-4.25
Phenylethylalcohol		- 9.00
Vanillinoz.	.45	50 55
Parale	_	54
Violet, artificial (Ionone) lb.	-	- 8.00
Yara Yara Crystalstb.	-	- 2.50

CHEMICALS, PAINT PIGMENTS, DYES, ETC.

The high degree in which "Proctor" Dryers excel for economy in drying, is a commanding reason every manufacturer who requires drying should investigate these machines. A new illustrated catalogue, written around the experiences of many users, will be sent on

PROCTOR & SCHWARTZ, INC. Formerly The Philadelphia Textile Mach'y Co., PHILADELPHIA, PA.



Benzyl Benzoate C. P. (MEDICINAL)

accepted by the Council of Pharmacy and Chemistry A Standard Medicinal Brand

Manufactured By

VAN DYK & COMPANY

Incorporated 1904

4-6 Platt St., New York

The Monthly English Edition of "The Weekly Druggist"



Sole and Influential Journal to Promote the Trade of Chemicals, Drugs, Dyestuffs, Etc., Etc.

Subscription: Yen 1.50 per annum Advertisement on application

THE YAKUGYO SHUHO SHA

12 Hommuracho, Azabu Tokyo, Japan

Aromatic Chemicals

(Since '78)

M.L. BARRETT & CO. Merchants

Essential Oils Fine Chemics, Synthetics Colors

233 WEST LAKE STREET -Established 1873

CHICAGO, ILL Cables: Lazerno

Di

EPSC fos EXT Spe

> WOO FLOI GEL dor GLA

GLU kgs pre & GLU

GUM bdl

Lo Co In Mo Co Ba Co

HEI bl

HYI

Imports of Chemicals, Dyestuffs, Drugs, etc.

Imports at New York, from Jan. 21 to Jan. 28

ACIDS—Boracic, 34 csks., Pacific Coast Borax Co., Leghorn; Citric, 750 pkgs., Order, Palermo; 100 csks., W. Neuberg, Rotterdam; Cresylle, 14 drs., Mallinckrodt Chemical Co., Liverpool; 50 drs., Order, Glasgow; 25 drs., Order, Dudec; 40 drs., C. D. Stone & Co., Hull; 71 drs., Cosmopolitan Shipping Co., Rotterdam; 68 drs., Order, Rotterdam; Lactic, 23 csks., Knauth, Nachod & Kuhne, Rotterdam; Tartaric, 150 csks., W. Neuberg, Rotterdam; 105 csks., W. Neuberg, Rotterdam

ACETYLENE TETRACHLORIDE - 5 bbls.,

American Engineer Corp., Bremerhaven
ALBUMEN—56 cs., E. Lilly Norton, Shanghai; 31 cs., Order, Shanghai; 193 cs., Order,
London; Egg, 112 cs., S. W. Bridges & Co.,
Tientsin; 56 cs., Order, Tientsin; 67 cs.,
Stein, Hall & Co., Tientsin; 36 cs., French
Kreme Co., Tientsin; 136 cs., Order, Shanghai

ALCOHOL-Denatured, 80 bbls., N. Y. Indus-

hai
ALCOHOL—Denatured, 80 bbls., N. Y. Industrial Alcohol Co., San Juan
ALOES—100 cs., Suzarte & Whitney, Curacao
AMMONIUM SALTS—Bromide, 50 cs., Order,
Hamburg; Carbonate, 22 cs., 10 csks., 10
bbls., Brown Bros. & Co., Liverpool; Fluoride, 6 csks., C. B. Richard & Co., Hamburg
ANTIMONY—Crude, 1,000 pkgs., Harshaw,
Fuller & Goodwin Co., Shanghai; Regulus,
1,500 cs., E. Lilly Norton, Shanghai; 500
cs., Order, Shanghai
ARGOLS—86 csks., Royal Baking Powder
Co., Naples; 89 csks., Order, Leghorn; 15
scks., Spencer & Naters, Valparaiso
BALSAM—4 cs., Ultramares Corp., Central
American Ports
BARIUM SALTS—Binoxide, 35 drs., A. W.
Kretschmar, Hamburg; Carbonate, 30 csks.,
Superfos Co., Hamburg; 48 csks., 125 bbls.,
Order, Hamburg; Chloride, 60 bbls., Order,
Hamburg

BARKS—45 bls., Cohen & Co., Nassau; 3 cs., Order, Sydney; siftings, 15 bgs., Cohen & Co., Nassau
BEANS—Vanilla, 61 cs., Order, Marseilles
BERRIES—Hawthorn, 7 bgs., Lunham &

BEANS—Vanilla, 61 cs., Order, Marseilles BERRIES—Hawthorn, 7 bgs., Lunham & Moore, Rotterdam; Juniper, 100 bgs., Order, Leghorn; 500 bgs., Order, Liverpool; 77 bgs., Order, Leghorn BITTERS—1,150 pkgs., J. W. Wupperman, Triviled

BLANC FIXE-30 bbls., Iscoga Chemical Co.,

BLANC FIXE—30 bbls., Iscoga Chemical Co., Hamburg
BORAX—I csc., Order, London
BRONZE POWDER—22 cs., State Forwarding & Shipping Co., Bremerhaven; 5 cs., Baer Bros., Bremerhaven; 2 cs., C. B. Richard & Co., Tientsin; 40 cs., F. A. Cundill & Co., Tientsin; 150 cs., Order, Shanghai CASEIN—415 pss., Mechanics & Metals National Bank, Buenos Aires; 833 bgs., Kalbeleisch Corp., Buenos Aires; 5 bgs., British American Tobacco Co., London CHALK—4 bbls., S. J. Fajardo, San Juan CHEMICALS—100 cs., Pfaltz & Bauer, Bremerhaven; 100 csks., C. B. Richard & Co., Copenhagen; 20 csks., C. B. Richard & Co., Hamburg; 10 cs., Ex. Lax Mig. Co., Hamburg; 10 cs., Co., Hamburg; 10 cs., Ex. Lax Mig. Co., Hamburg; 100 csks., Hummel & Robinson, Hamburg; 100 csks., Hummel & Rob

CHILLIES—109 pkgs., Order, Glasgow CINCHONIDINE—5 cs., Order, Rotterdam COCOA BUTTER—200 bgs., Willard Chocolate,

CINCHONIDINE—5 cs., Order, Rotterdam COCOA BUTTER—200 bgs., Willard Chocolate, Ltd., Rotterdam COLORS—30 cs., Pittsburgh Plate Glass Co., Genoa; 5 cs., Reschard Coulston, Inc., Havre; 1 bbl., National Aniline & Chemical Co., Vera Cruz; 38 pkgs., J. McCoy, Melbourne; 2 csks., B. F. Drakenfeld & Co., Liverpool; 1 cse., National City Bank, Rotterdam; 5 cs., National City Bank, Rotterdam; 5 cs., National City Bank, Rotterdam; 3 pkgs., National City Bank, Rotterdam; 3 pkgs., National City Bank, Rotterdam; 8 pkgs., National City Bank, Rotterdam; 8 pkgs., Kuttroff, Pickhardt & Co., Rotterdam; 20 csks., Equitable Trust Co., Rotterdam; 20 csks., Equitable Trust Co., Rotterdam; 1 cse., Tennrich & Co., Rotterdam; 2 cs., Pennrich & Co., Rotterdam; 2 cs., Canada Color & Chemical, Ltd., Rotterdam; 3 csks., Kuttroff, Pickhardt & Co., Rotterdam; 3 csks., Kuttroff, Pickhardt & Co., Rotterdam; 2 cs., Order, Rotterdam; 4 cs., Van Oppen & Co., Have; Allianec, Rotterdam; 2 cs., Order, Rotterdam; Bronze, 23 cs., Gerstendorfer Bros, Bremerhaven; 15 cs., Fuchs & Lang Mfg. Co., Bremerhaven; Earth, 100 bbls., E. M. & F. Waldo, Malaga COPRA—1,049 scks., J. C. Murray & Co., Manila CREOSOTE—2 cs., H. S. Head, Rotterdam

Manila
CREOSOTE—2 cs., H. S. Head, Rotterdam
DIVI DIVI—460 bgs., Goldsmith & Co.,
Pampatar; 600 bgs., Selma Mercantile Corp.,

Curacao
DRUGS—1 cs., A. Giese & Son, Glasgow; 1
csc., A. P. Villa Bros., Brazil; 15 cs.,
Merck & Co., London; 1 csc., Order, London; 25 cs., E. Fougera & Co., Havre
DYE WOOD—397 bgs., C. H. Pearson, Central
American Ports

T. FUJISAWA & CO.

Manufacturing Chemists

21 PARK ROW :: NEW YORK CITY

Telephone Barclay 7832

JAPAN REFINED

CAMPHOR AND **MENTHOL**

Main Office

Doshumachi, Osaka, Japan

Cable Address: Camphrier, Osaka All Codes Used

We offer for prompt shipment-

Formaldehyde Hexamethylenetetramine Salicylic Acid Sodium Salicylate Methyl Salicylate

(Oil of Wintergreen - Synthetic)

Potassium Bromide

(Granular and Crystal)

Salol

All complying with highest purity standards

Heyden Chemical Company of America. Inc.

GARFIELD, N. J.

New York Offices 135 William St.

Chicago Offices 180 N. Market St

EPSOM SALT-550 csks., 2,550 bgs., Super-EPSOM SALT—550 csks., 2,550 bgs., Superfos Co., Hamburg
EXTRACTS—Archil Liquor, 5 csks., W. A.
Ross & Bro, Liverpool; 10 csks., Innis
Speiden & Co., Liverpool; Logwood, 128
bbls., Logwood Mig. Corp., Cape Hattien;
211 csks., West Indies Chemical Works,
England, Kingston; 75 csks., American Dyewood Co., Kingston; Ouebracho, 12,497 bgs.,
J. T. Cosby, Montevideo; 2,062 bgs., Bank
of New York, Buenos Aires; 7,889 bgs., J.
F. Cosby, Buenos Aires;

wood Co., Hawre FLORYLIN-25 drs., Order, Hamburg GELATIN-10 bls., Bank of New York, Lon-don; 100 bls., Order, Marseilles GLAUBER SALT-250 bgs., Chemical National Bank, Hamburg; 78 csks., 150 bgs., Schulz Bank, Hamburg: 78 csks., 150 bgs., Schulz & Ruckgaber, Hamburg LUE-I drum, Guaranty Trust Co., Mar-seilles: 20 bls., Pfaltz & Bauer, Havre; 3 kgs., Order, Leith; 40 bgs., American Ex-press Co., Liverpool; 1 cse., L. Uhlfelder & Co., London

ate, Co., nc., ical Iel-

ter. 28..

ò.,

GLUESTOCK-122 bls., Irving National Bank,

GUBS-OCK—122 bls., Irving National Bank, Genoa GUMS—20 bls., Pfaltz & Bauer, Havre; 41 bdls., H. W. Peabody & Co., Progreso; 7 cs., Grevatt Bros., Inc., San Juan; 262 bls., B. L. Atwater, Ciudad; 2 cs., American Chicle Co., Port Limon; 1 cse., Perry, Ryer & Co., London: 59 cs., W. Wrigley, London: 62 cs., P. & O. S. N. Co., London: Copal, 50 scks., France Campbell & Darling, Inc., Manila; 4 cs., American Express Co., Montevideo: Damar, 50 cs., Baring Bros. & Co., Singapore; 396 bgs., International Banking Corp., Singapore; Elemy, 399 cs., Corn Exchange Bank, Manila; Euphorbium, 8 bgs., Lunham & Moore, Rotterdam: Ghatty, 57 bgs., Order, Glasgow; Kadaya, 136 bgs., Ivring National Bank. Bombay; Karaya, 134 bgs., Order, Glasgow; Kadaya, 11 cs., M. Galanos & Co., Constantinople; 11 cs., D. Costalos, Constantinople; 7 cs., Bank of Athens, Constantinople; 40 cs., Order, Constantinople; Tagacanth, 8 bss., Order, Smyrna; 8 cs., Thurston & Braidich, London; 48 cs., Order, Sombay
HERBS—1 pkge., R. Montval, Valparaiso; 10 bls., I. Schoenegan, Inc., Vancouver
HYPOPHOSPHITE—Syrup, 52 pkgs., Fellows Medical Manufacturing Co., Manila
IODINE—50 kgs., Nash, Watjen & Bangs, Iquique

IODINE—50 kgs., Nash, Watjen Iquique
IRON OXIDE—35 bbls., S. E. Goldberg, Malaga; 154 bls., C. K. Williams & Co., Liverpool; 46 csks., L. H. Butcher & Co., Liverpool; 46 csks., Reichard Coulston Co., Liverpool; 47 csks., Reichard Coulston Co., Liverpool; 48 Leaves—45 bls., Order, Marseilles; 40 bls., Brewer & Co., Callao; Sage, 271 bls., Banque of Populaire, Piraeus; 75 bgs., N. A. Galanos & Co., Piraeus; 351 bls., Order, Piraeus; 351 bls., Order, Piraeus; 351 bls., Order, Piraeus; 20 bls., Order, Piraeus; Alley Core, Piraeus; 20 cs., 20 scks., Order, Marseilles; 15 cs., Order, Marseilles

Marseilles

LITHOPONE—40 csks., National City Bank, Hamburg; 400 csks., Newark Export Co.,

LUPULINE-5 cs., American Burtonizing Co., MAGNESITE-Calcined, 84 csks., Order, Glas-

MAGNESIUM SALTS—Chloride, 135 bbls., National City Bank, Hamburg; Metal, 3 cs., Redden & Martin, Bremerhaven MEDICINALS—20 cs., G. W. Gulde, Naples; 5 cs., Order, Naples MENTHOL—50 cs., T. Seltzer, London MERCURY—2 cs., American Express Co., Potterden.

Rotterdam
MYROBALANS—4,060 pkts., Order, Calcutta;
1,600 bgs., Bank of British West Africa,
Bombay: 1,600 bgs., Order Bombay
NITROGENOUS MANURE—1 bbl., Union
Carbide Co., Copenhagen
OCHRE—1 cse., Hamilton & Hansell, Gothenburg; Red, 35 csks., J. Lee Smith & Co.,
Hull

burg; Red, 35 csks., J. Lee Smith & Co., Hull

DLS-1 bbl., V. Klostarides. Constantinople; 10 cs., Order, Marseilles: 160 pkgs., Order, Palermo; 1 cse., Morasal Co., London; 1 csk., Rockhill & Vietor, Havre; 1 csk., Rockhill & Vietor, Havre; 6 cs., Morana, Inc., Havre; 2 cs., Orbis Products Trading Co., Havre; Castor, 100 bbls., L. Sonneborn Sons, Hull; Cod, 10 cs., National City Bank, Bergen; 1 bbl., Order, Bergen; Codliver, 125 bbls., Cook & Swan Co., Bergen; 75 bbls., Kachurin Drug Co., Bergen; 25 bbls., Ozomulsion Co., Bergen; Haarlem, 20 cs., Lehn & Fink, Rotterdam; Linseed,

145 bbls., Order, Dundee; 406 bbls., American Linsced Co., Hull; 1,154 bbls., Nairu Lino Co., Hull; 700 bbls., Order, Hull; 2csks., Mark & Schaefer Co., Buenos Aires; 184 bbls., V. H. Hunter, Rotterdam; 369 bbls., Order, Co., Rotterdam; 369 bbls., American Linsced Co., Rotterdam; 369 bbls., American Linsced Co., Rotterdam; 369 bbls., American Linsced Co., Rotterdam; 369 bbls., Order, Rotterdam; 370 bbls., American Linsced Co., Rotterdam; 369 bbls., Order, Rotterdam; 24 csks., Arnhold Bros., Shanghai; Olive, 25 bbls., Ambridam Rotter, 105 bgs., G. W. Sheldon & Mosowos, Constantinople; 9 cs., A. Roumbos, Constantinople; 9 cs., A. Roumbos, Constantinople; 100 bbls., Order, Smyrna; 1 bx., B. P. Salmon, Piracus; 30 bbls., N. A. Galanos & Co., Piracus; 30 bbls., N. A. Galanos & Co., Piracus; 30 bbls., Order, Smyrna; 1 bx., B. P. Salmon, Piracus; 30 cs., Bank of Athens, Piracus; 30 bbls., Order, Smyrna; 1 bx., M. Antonio, Messina; 7 bbls., A. Raffa, Messina; 1 bbl., A. Pepe, 100 cs., Bank of Manhatian Co., Tarragona; 26 bbls., Order, Calamata; 27 cs., 3 csks., General Transport Co., Naples; 1 bbl., M. Antonio, Messina; 7 bbls., A. Raffa, Messina; 1 bbl., A. Pepe, Messina; 1 bbl., A. Pepe, Messina; 1 bbl., Mitsui & Strieb, M. A. Raffa, Messina; 1 bbl., A. Pepe, Firacus; 12 bbls., Bank of Athens, Piracus; 1 csc., F. Bechm, Ltd., London; Palm, 32 csks., Ce. R. Spence & Co., Liverpool; 100 csks., D. Bacon, Liverpool; Rapesed, 20 bbls., E. Lilly Norton, Shanghai; 30 csks., Doder, Messina; 20 bbls., G. Baccalas, Patras; 271 csks., Order, Naples; Wood, 294 csks., Malaga; 10 bbls., Defer, Malayas; 10 bls., Defer, Malayas; 10 bls., Defer, Malayas; 10 bls., Liverpool; 100 csks., Doder, S. Co., Shanghai; 100 cs., G. Lueders & Co., Marseilles; 40 csks., A. Raffa, 10 bbls., Defer, Malayas; 10 bbls., G. Baccalas, Patras; 271 csks., Order, Naples; Wood, 294 csks., Booth S. Co., Shanghai; 100 cs., G. Lueders & Co., Marseilles; 40 csks., A. Raffa, 10 bbls., Defer, Malayas; 10 bbls., Defer, Malayas; 10 bbls., Defer, Malayas; 10 bbls.,

Linaloe, 5 cs., Order, Vera Cruz; Orange, 50 cs., Brown Bros. & Co., Messina; 50 patchoull, 6 cs., Order, Singapore: Petit Grain, 30 cs., National Bank of Commerce. Buenos Aires; Sandalwood, 13 cs., Fritzsche Bros., London: 5 cs., Magnus, Mabee & Reynard, London; 43 cs., G. Lueders & London

OPIUM-3 cs., Hadjipoulos Bros., Constantinople: 46 cs., Order, Rotterdam
OSSEINE-200 bgs., A. Murphy & Co., Ham-

POTASSIUM SALTS—Bromide, 16 bbis., Iscoga Chemical Co., Hamburg: Caustic, 107 drs., Superfos Ca., Hamburg: 9½ drs., Fourth Street National Bank, Hamburg: 28 drs., Superfos Co., Hamburg: 76 drs., Order, Hamburg: 50. s., Mallinekrodt Chemical Works, Gothenburg: 20 drs., Order Gothenburg: 212 csks., Roessler & Hasslacher Chemical Co., Hamburg: Chloride, 190 kgs., Netherland Chemical Co., Hamburg: Chloride, 17,600 scks., Societe Commerciale de Potassen d'Alsace, Antwerp: 13,000 scks., Order, Antwerp: Metal, 1 cs., Eimer & Amend, Hamburg: Meta Bisulfite, 100 bbls., Iscoga Chemical Co., Hamburg: 2,000 bgs., A. Vogel, Hamburg: Permanganate, 38 drs., Order, Hamburg: Yellow Prussiate, 19 csks., Meteor Products Co., Rotterdam QUICKSILVER-200 flasks, Italian Discount

& Trust Co., Leghorn

RENNET POWDER—3 cs., Meadows, Wye
& Co., Copenhagen

& Co., Copenhagen
RESIN-Varnish, 2 csks., G. W. Sheldon & Co., Hull

ROCHELLE SALTS-50 csks., Order, London ROCHELLE SALIS—30 csks., Order, London
ROOTS—48 bls., Order, Marseilles; 32 bgs.,
Order, Smyrna; Broom, 99 bls., Order, Vera
Cruz; Canagria, 25 bgs., Order, Vera Cruz;
Jalap, 15 bgs., N. Triest, Vera Cruz; Orris,
44 bgs., Order, Leghorn; Sarsaparilla, 22
bls., Order, Vera Cruz
SAL AMMONIAC—44 csks., Superfos Co.,
Hamburg; 113 bbls., Order, Hamburg

So., G. Borgfeldt & Co., Rotterdam

SODIUM SALTS—303 drs., Guaranty Trust
Co., Marseilles; 40 csks., A. Klipstein &
Co., Hamburg; Bisulfite, 25 csks., Order,
Hamburg; Cyanlde, 100 csks., National
City Bank, Havre: Hydrosulfite, 394 drs.,
E. M. Sergeant & Co., Marseilles; 100
csks., H. A. Metz & Co., Rotterdam; 118
csks., Kuttroff, Pickhardt & Co., Rotterdam; 118
csks., Kuttroff, Pickhardt & Co., Rotterdam; 18
csks., Kuttroff, Pickhardt & Co., Bergen; Nitrate, 2,865 bgs., W. R.
Grace & Co., Iquique; Perborate, 46 kgs.,
F. Boehm, Ltd., Rotterdam; Perchlorate, 3
kgs., H. J. Baker & Bro., Rotterdam; Prussiate, 40 csks., Order, Liverpool; 88 csks.,
Order, London; 48 csks., Meteor Products
Co., Havre; Suffate, 271 bbls., Foreign
Trade Supply Corp., Hamburg; Yellow
Prussiate, 54 csks., Irving National Bank,
Rotterdam; 8 csks., H. W. Peabody &
Co., Manchester

SPICES—Cassia, 1,500 bls., Frame & Co.,

Co., Manchester

SPICES—Cassia, 1,500 bls., Frame & Co., Hongkong; 250 cs., E. Miltenberg, Inc., Hongkong; Cloves, 830 pkgs., Order, Glasgow; 1,000 bls., Childs & Joseph, Rotterdam; 550 bls., Order, Rotterdam; 100 bls., Order, Rotterdam; 180 bgs., Frame & Co., Leith; 107 bgs., Order, Liverpool; 25 bgs., A. S. Lascelles & Co., Kingston; 340 bgs., Order, London; 400 bgs., Order, Bombay; Mace, 4 cs., Catz American Co., Grenada; Nutmegs, 150 pkgs., McCormick & Co., Grenada; 3 bgs., Huth, Gillespie & Co., Grenada; Pepper, 351 bdls., 'Atlantic National Bank, Glasgow

STICKLAC—168 cs., East Asiatic Co., Penang

National Bank, Glasgow
STICKLAC—168 cs., East Asiatic Co., Penang
SUMAC—350 bgs., Order, Palermo
TARTAR—72 bgs., C. Pfizer & Co., Valparaiso; Cream, 50 bbls., Bertoliai & Goedert, Genoa; 74 csks., Tartar Chemical Works, Naples; 200 csks., Superfos Co., Rotterdam; Emetic, 2 bdls., Irving National Bank, Hamburg Hamburg

UREA-50 cs., Iscoga Chemical Co., Hamburg; 53 pkgs., 47 pkgs., Kuttroff, Pickhardt & Co., Rotterdam

VALONEA-1,942 bgs., Irving National Bank, Smyrna; 657 bgs., Order, Smyrna

VERMILION-1 csk., C. H. Powell & Co.,

WAX—Bees, 6 csks., W. R. Grace & Co., Callao; 20 cs., A. Vogel, Hamburg; 20 cs., Order, Hamburg; Carnauba, 6 bgs., Amer-ican Trading Co., Ceara; 77 bgs., Irving National Bank, Ceara

WINE-Medicinal, 50 cs., M. J. Corbett & Co., Bremerhaven; 600 cs., Poges & Levy, Rotterdam

ZINC SALTS—Oxide, 100 bbls., Iscoga Chemical Co., Hamburg; 75 csks., American European Trans. Co., Hamburg; Sulfide, 1 csk., C. A. Sykes, London

DRU

Books of Trade Interest

GLASS SANDS OF KENTUCKY. By C. H. Richardson. 8 vo., 149 pages.

II. ECONOMIC PAPERS ON KENTUCKY GEOLOGY. By W. R. Jillson. 8 vo., 304 pages. Published by the Kentucky Geological Survey, Frankfort, Ky., 1921.

Geological Survey papers describing glass sands, petroleum, gas, oil shales, etc., in Kentucky.

LUBRICATING AND ALLIED OILS. By Elliott A. Evans. 8 vo., 128 pages. Published by E. P. Dutton & Co., New York. 1921.

A handbook for the laboratory worker giving descriptions of laboratory methods of carrying out the regular physical and chemical tests of lubricating oils, with especial attention to viscosity.

A MANUAL OF FLOTATION PROCESSES. By Arthur F. Taggart, Columbia University School of Mines. 8 vo., 181 pages. Published by John Wiley & Sons, New York. 1921.

A careful treatment of the theory and practice of ore flotation processes. It is evidently designed as a reference work for the operating engineer as well as a text for the student of ore treatment. The flow sheets of various flotation mills are particularly interesting as well as the apparatus for laboratory flotation.

The Nerv-Worth Co., Zanesville, O., has been reorganized. W. C. Doan retiring. He has been succeeded by A. J. Brown, and Farel Hart, of John Wyeth and Co., manufacturing chemists of Philadelphia. The company organized by electing A. J. Brown president and general manager: Farel Hart, treasurer, and E. R. Meyer, secretary. The company will continue the manufacture of "Nerv-Worth" and will add other remedies to the line.

The Speiden Whitfield Co., 150 Nassau st., New York, incorporated at Albany, last week, will deal in industrial chemicals. Ernest K. Speiden, one of the incorporators, is a brother of Clement C. Speiden, member of Innis, Speiden & Co., 46 Cliff st. The company is capitalized at \$60,000. The other incorporators are L. M. Whitfield and A. E. Adams.

D. M. Mason, vice-president and general manager of the Mason Tire & Rubber Co., and treasurer of the Weston Reserve Cotton Mills Co., Quitman, Ga., authorized the announcement that within the next eighteen months the cotton mills will be doubled in capacity.

In announcing a bonus distribution to employees of the Endicott-Johnson Corp., leathler and shoes, President George F. Johnson stated the company earned \$4,000,000 in 1921 after payment of taxes and dividends of \$7 on preferred stock and \$5 a share on common stock.

Ostrow Brothers, druggists 1123 Second ave., filed schedules in bankruptcy on Jan. 27, listing liabilities of \$12,050 and assets of unknown value. Principal creditors listed are Glaser & Sons, Inc., \$2,980; Schieffelin & Co., \$2,018, and Liquid Carbonic Co., \$1,350.

The Egan & Hausman Co., Inc., 476 Clinton ave., Brooklyn, N. Y., manufacturer of colors, has awarded a contract for a two-story plant, 50x100 feet, located at Bodine and Hamilton sts., Long Island City. The structure is estimated to cost \$25,000.

The Glenwood Industrial Distilling Co., Philadelphia, has taken title to property on Cedar st., near Tioga st., consisting of a one-story and basement building, for local works. The consideration was said to be about \$38,000.

QUICKSILVER OUTPUT IN U. S. DECLINES

(Special to DRUG & CHEMICAL MARKETS)

Washington, D. C., Feb. 1.—Preliminary figures showing the production of quicksilver in the United States in 1921, compiled by F. L. Ransome, of the United States Geological Survey, Department of the Interior, give a total of 6,339 flasks, as compared with 13,392 flasks in 1920. Of this output 3,094 flasks is credited to California, 3,144 to Texas, 100 to Nevada, and 1 to Idaho. So far as could be learned, Oregon produced no quicksilver in 1921.

In California seven mines reported production, but the output from all but the El Senador mine, of the New Almaden group, was very small. The New Idria mine, for many years the largest producer of quick-silver in the United States, was idle in 1921. In Texas the Chisos was the only mine that remained continuously productive, but a small output was expected in December from the Mariscal mine, near McKinney Springs, and is included in the total. In Nevada about 100 flasks were obtained in the Pilot Mountains, east of Mina.

The average price of quicksilver in 1921 per flask of 75 pounds, as quoted by the "Mining and Scientific Press" for the San Francisco market, was \$47.42. The highest monthly average was \$50, in January and May; the lowest was \$40.40 in November. The average for December rose to \$49.50.

Never before has the quicksilver mining industry in the United States sunk to so low an ebb. The first recorded annual production was 7,723 flasks, in 1850, and from that year to 1920 inclusive the annual output has been 10,000 flasks or more—in fact in only five years has it been less than 20,000 flasks. The maximum output, that of 1877, was 78,395 flasks. The output in 1921 was thus the smallest on record.

RULING REGARDING ALCOHOL FORMS

(Special Correspondence to DRUG & CHEMICAL MARKETS)

Washington, D. C., Feb. 1—David H. Blair, Commissioner of Internal Revenue, has sent the following memorandum to collectors regarding returns of institutions holding permits under regulation 61 to use tax free alcohol:

"Each hospital and educational institution required by Regulations 61 to render returns on Form 1451, accounting for tax-free alcohol received and used, will render such return for each month, or part of month, from the date of its permit. Where a permit to use tax-free alcohol has been issued to a hospital or educational institution and no alcohol has been withdrawn under same, Form 1451 should be rendered in blank by such hospital or institution with the notation 'No alcohol withdrawn' written across the form."

R. A. Haynes, prohibition commissioner has also sent the following to collectors regarding industrial alcohol: "Beginning with the month of February, 1922, pro-prietors of industrial alcohol bonded warehouses will make five copies of Form 1443-A, (Monthly Return of Uncoopered Alcohol Received and Disposed of), and five copies of Form 1443-B, (Monthly Return of Alcohol in Packages Received and Disposed of), and deliver four copies of each form to the officer in charge at the bonded warehouse and retain one copy of each at the bonded warehouse. The officer will examine the four copies of each form delivered to him and, if complete in every respect, will forward one copy of each to the collector of the district, one copy of each to the director of the state, and the other two copies of each to the Federal Prohibition Commissioner, 1330 F st., Northwest, Washington, D. C."

JOB WANTED

I am a prompt, efficient, reliable business aide.

I know the chemical and drug fields-that's always been my business.

I have a responsible correspondent in every important function industrial center and in seventeen foreign cities.

I have a staff of University trained chemists, whose education has been tempered by actual plant and selling experience, whose whole time is devoted to giving me market reports and price changes.

I can keep the busy Executive posted on developments and conditions.

I can tell the Sales Manager the news of the field and tip him off on new companies that are prospects.

I can give the Plant Manager and the Chemist a point of contact with the dollars-and-cents side of the industry.

I can give the Purchasing Agent—whether he buys for a chemical plant, a textile or steel mill, a tannery or a cannery, a paint or a candy factory, a wholesale druggist or a railroad—concise and accurate market reports and the most complete, best arranged price quotations on chemicals, drugs, and fatty oils.

I have "no axe to grind" and am well known as a faithful, fearless servant of the American chemical and drug industries.

I have been hired by such firms as the General Chemical, P-W-R, Penna. R. R., du Pont, Parke-Davis, Chiris, Western Electric, R. & H., American Woolen, Colgate, Grasselli, Grace, Allis-Chalmers, Kolynos, Edison, Merck, Dow, Sears-Roebuck, Monsanto, Kodak, Barrett, American Cotton Oil, McK. & R., Todd, Solvay, the Celluloid Co., United Drug, Matheison, S. K. & F., the U. S. Steel Corp., the A. & P., Sterling Products, Dr. Munyon, U. S. Worsted, Natl. Aniline, Goodrich, Fiske, Lilly, Prestolite, and Uncle Sam.

Without their permission—but confident of their recommendation—I refer you to any of the above or to nearly 5,000 others who have employed me regularly.

Salary-1% c. per business day: \$4 a year.

I am Drug & Chemical Markets.

Address in care of the Subscription Department, 3 Park Place, New York City: Telephone, Barclay 7646.

CHEMICAL WARE

and

MACHINERY

From the Old Hickory Powder Plant An immense amount of new and slightly used chemical stoneware, duriron, laboratory equipment, technical machinery, boilers, engines, etc., now available for immediate delivery at extremely low prices.

Write for Bulletin No. 14

Nashville Industrial Corp.

Removal Notice

On and after February 1st, we will be located at our new and larger quarters

70 Cliff Street, New York

where we will endeavor to serve you even better than we have in the past.

Pacific Chemical Co.

Telephones the same: Beekman 8257-8-9

Merchants Chem. Co.

Incorporated

7 So. Dearborn St., Chicago

Milwaukee

Minneapolis

High Grade



Chemicals

ACIDS

Muriatic Mixed Sulphuric

CONTACT PROCESS CO.

BUFFALO, N.Y.

Naphthalene Flakes Bicarbonate of Potash U.S.P. Carbonate of Potash

Potash Alum Lump U.S.P. Beta Naphthol Caustic Potash

GEO F. TAYLOR CO., Inc.

Established 1873

45 William Street

New York

For Heavy Chemicals

From GERMANY or AUSTRIA
Telegraph "WALTERDEN, HAMBURG"

For FRENCH or BELGIAN PRODUCTS
Telegraph "WALTERDEN, PARIS

WALTER DENMAN

(YOUR AGENT)

40 Gr-Burstah, Hamburg 19 Rue Auber, Paris

NAPHTHALENE

Ball - Flake - Crystals

The Chatfield Manufacturing Co.

Cincinnati, Ohio, U.S.A.

Chicago Stock: ROCKHILL & VIETOR
Phone, Franklin 4941-2-3 180 N: Market St., Chicago, Ill,

GOLDSMITH BROS. SMELTING & REFINING CO.

CHICAGO, ILLINOIS

Manufacturers of

COPPER SULPHATE

(BLUE VITRIOL)

Powdered 200 Mesh Large or small crystals WANT establi White, D. Ve Americ de Fra LOND sire t

D

COMIL or lead cheap King GERM and s compe & CH

HOSI

Highe & CH

wE a size Sta.,
OIL Co., A half i Joplin

IF ye chase 50, D

WAN essentially KET: WAN paint impo:

DIST facturantic MAI

> salar 49, I DRU and Writ CHE

JOB for Writ Ches PRI peno vani with

EN sale

SHI age, CHI

Wants & Offers

Rate—All classifications, \$1.00 an issue for 20 words or less, additional words, 5c each, per issue.

Payment-Must accompany order, add 10c if replies are to be forwarded. Address "Wants & Offers"

DRUG & CHEMICAL MARKETS
3 Park Place, New York.

BUSINESS OPPORTUNITIES

WANTED; Chemical brokerage concerns, well established, to sell the finest, genuine Paris WANTED; Chemical brokerage concerns, well established, to sell the finest, genuine Paris White, French Tale, and Crude Chalk. Address D. Vecchini, Singer Bldg., N. Y. City, Sole American agent for the Societe Commerciale de France et D'Outre-Mer of Paris, France.

LONDON drug and chemical merchants de-sire to appoint American Sales Agents on commission basis. Connection essential. Highest reterences required. Box 59, DRUG & CHEMICAL MARKETS.

COMPLETE proprietary laboratory for sale or lease, with services of owner. Good town, cheap labor, excellent shipping facilities. King Mfg. Co., Coudersport, Pa.

GERMAN firm offers manufacturing process and sole selling rights in U. S. A. for non-competitive chemical product. Box 57, DRUG & CHEMICAL MARKETS.

HOSPITAL of factory building for sale 1-3 value, or will lease 4-story brick 50x150, Seven railroads. C. M. Spring Drug Co., Joplin, Mo.

WE are interested in several carloads sugar-size barrels. Robert G. Barr Co., Kirkwood Sta., Atlanta, Ga.

OIL Developments. Have 2,000 acres Cleveland Co., Arkansas. Four wells drilling, will lease half for drilling one good well. C. M. Spring, Joplin, Mo.

IF you desire a reliable broker for the pur-chase of chemicals and drugs, write to Box 50, DRUG & CHEMICAL MARKETS.

HELP WANTED

WANTED salesman with proved record in essential oil line. Splendid future with growing concern. Give full particulars; confidentially. Box 56, DRUG & CHEMICAL MARKETS.

WANTED Salesman, now calling wholesale paint dealers, able to handle side line of imported Earth Colors. Box 52, DRUG & CHEMICAL MARKETS.

DISTRIBUTORS or agents wanted by manufacturing chemist for high class household articles. Box 51, DRUG & CHEMICAL

YOUNG man, assistant in laboratory of essential oil concern. State experience and salary. First class reference required. Box 49, DRUG & CHEMICAL MARKETS.

DRUG salesmen for fine line to physicians and retail trade. Liberal commission basis. Write full particulars. Box 38, DRUG & CHEMICAL MARKETS.

JOBBERS, salesmen and distributors wanted for Barbers Special Extract (Witch hazel). Write for particulars and samples. E. Kay, Chester, Conn.

PRICER: Young man, quick, accurate, de-pendable, good habits, for Western Pennsyl-vania established drug jobbing house. Replies with detailed experience only considered. Box with detailed experience only considered 29, DRUG & CHEMICAL MARKETS.

ENERGETIC salesmen for retail and whole-sale drug trade. Attractive line. Liberal commission by reputable house. State ex-perience; confidential. Box 27, DRUG & CHEMICAL MARKETS.

SHIPPING clerk wanted. Drug line. Write age, experience, salary. Box 37, DRUG & age, experience, salary. CHEMICAL MARKETS.

The "Wants & Offers" Page

There's a world of interest in the "Wants & Offers" columns—they reflect the needs of individuals—singly and collectively.

"Wants & Offers" are in a broad sense, the market place of the drug and chemical industries.

and chemical industries.
"It takes two to make a bargain," and the two must be brought together.
"Wants & Offers" do this. They are quick in action—cost little—and comprehensive in their scope.

HELP WANTED

SALESMAN thoroughly acquainted with Wax business all over the country; only experi-enced men with first class references will be considered. Box 58, DRUG & CHEMICAL MARKETS.

AGENTS wanted. All large cities to carry line of chemicals to druggists and perfumers. Room 2022, 30 Church St., N. Y. City.

WANTED salesmen to handle our massage alcohol to both the wholesale and retail drug trade. If necessary can be handled as a side line. Liberal commissions. Liebenthal Bros. & Co., 1430-38 West 9th Street, Cleveland, Ohio.

BRIGHT Christian girl stenographer for small but busy office. One familiar with chemicals preferred. Box 23, DRUG & CHEMICAL MARKETS.

CHEMIST experienced in Dyes, Oils and Dry Colors for general laboratory work, and learn matching of printing inks. Box 22, DRUG & CHEMICAL MARKETS.

WANTED salesman, calling on retail drug-gists to handle a few excellent side line specialties. Good commission. Box 32, DRUG & CHEMICAL MARKETS.

DETROIT drug manufacturer with large line wants salesman to call on retail druggists. Splendid opportunity. State Experience. Box 33, DRUG & CHEMICAL MARKETS.

STENOGRAPHER experienced in office work, and familiar with chemical dictation. Must be rapid and accurate. Give full particulars and salary expected in first letter. Box 48, DRUG & CHEMICAL MARKETS.

SALESMAN calling on paint and hardware trade to sell linseed oil, turpentine, and dis-infectants as side line. Commission basis. infectants as side line. Commission ba Box 46, DRUG & CHEMICAL MARKETS.

SALESMAN calling on hospitals and insti-tutions to sell pine oil and coal tar disin-fectants. Liberal commission basis only. Box 45, DRUG & CHEMICAL MARKETS.

WANTED active and best Spanish speaking counter man available. Take charge of crew, store arrangement, etc., Sanborns, Mexico City, Mexico.

SITUATIONS WANTED

WELL known chemical executive of broad, technical, and business experience with an exceptional record of invention and achievement, at present employed by a large corporament, at present employed by a large corpora-tion, desires to enter a concern of moderate size that needs development. Will only consider a major executive position with some arrangements leading toward a permanent financial interest in the business. Address S. P., 100 St. Nicholas Avc., N. Y. City.

ENECUTIVE, salesman, college graduate, two years experience in the Orient, desires connection or position in any capacity. Box 60, DRUG & CHEMICAL MARKETS.

CHEMICAL engineer, graduate, young man, plant and office experience, desires position in any capacity with concern where trustworthiness and ability will assure future. Box 53, DRUG & CHEMICAL MARKETS.

YOUNG man (26) married, Christian, mau-ager, dyestuff, shipping department, wishes position anything; A1 references; moderate salary. Zimmerman, 249 East 85th Street, salary. Zim

CHEMIST, experienced manufacturing flavorlng extracts, fruit syrups, emulsions, baking powder, etc. Box 54, DRUG & CHEMICAL MARKETS.

DRUGS & CHEMICALS

WHO is interested in supply of Quinoline, high grade, low price? Address Box 61, DRUG & CHEMICAL MARKETS.
FOR SALE—45 drums White Oil .836 gravity 70c Trenton. 5 Kilos Essence Mandarin \$4.50 lb. Thac Industrial Products Corp., 58 Middle Rose St., Trenton, N. J.

FOR SALE—Vitri-Flux; 8,000 Gallons packed in steel drums, used for tempering cement. Manufactured by The Granitex Co., 8 barrels blue sash putty. Box 55, DRUG & CHEM-ICAL MARKETS.

WE have on hand twenty barrels good grade Wood Turpentine. Will sell cheap. Box 44, DRUG & CHEMICAL MARKETS.

FULL line of laboratory chemicals and supplies, lists on request. Du Pont, Special Products Div., Wilmington, Del.

OFFER Barium Hydrate for regular future delivery. Five tons monthly. W. J. B. Box 41, DRUG & CHEMICAL MARKETS.

FOR SALE small lots of Methyl Violet 4B; Sky Blue; Direct Vellow; Acid Brown; Spe-cial Silk Blue; Acid Blue. Box 39, DRUG & CHEMICAL MARKETS.

WE offer Crude Grecian Magnesite. Large quantities on contract delivery over year. Hammill & Gillespie, Inc., New York City.

OFFER Potassium Metabisulphite 220 lb. kegs. regular delivery. Address B. C. C. Box 40, DRUG & CHEMICAL MARKETS.

PLANT EQUIPMENT

QUICK SALE—Two 5,000 gallon tanks perfect condition in New York. At less than half vw. R. Warner & Co., 113 West lath St., New York City.

WILL sacrifice large amount of test tubes, pipettes, leather belting, shafting, tables, etc., and a Revolvator. Box 24, DRUG & CHEMICAL MARKETS.

REFRIGERATING Ammonia Machines, 40 to 75 tons Standard rating vertical shell brine coolers similar capacity, reply fully. Box 26, DRUG & CHEMICAL MARKETS.

TOILET Goods salesmen for Eastern, Southern and Western territory. Commission. All particulars including reference in first letter, Box 28, DRUG & CHEMICAL MARKETS.

SOLVAY ALKALI

SODA ASH 99% Na₂ CO₃ Light and Dense

CAUSTIC SODA 97% Na OH Solid, Ground and Flake

PURE BICARBONATE
CLEANSING SODAS

CALCIUM CHLORIDE
Solid and Ground

CROWN FILLER

for Paper Manufacture

MANUFACTURED BY

The Solvay Process Co.

Factories:

SYRACUSE, N. Y.
DETROIT, MICH. HUTCHINSON, KAN.

SELLING AGENTS:

WING & EVANS, Inc.

22 WILLIAM ST., NEW YORK

BRANCH OFFICES

89 STATE ST., BOSTON, MASS.

625 BOOK BUILDING, DETROIT, MICH.
30 N. DEARBORN ST., CHICAGO, ILL.

BENZOIC ACID, U.S.P.

Sublimed

BENZALDEHYDE TECHNICAL and U.S.P.

COMMONWEALTH CHEMICAL CORP.

15 Park Row New York



608 So. Dearbo rn St., Chicago

- Alcohol—Ethyl for Export
- Alcohol—Denatured

For Domestic Uses

- Benzoic Acid U. S. P.
- Benzoate of Soda U. S. P.
- Creosote U. S. P.
 - Creosote Carbonate U. S. P.

ALBERT H. HIGBIE

Phone, Beekman 7277 154 NASSAU ST.

ESSEX CHRYSOPHENINE



ESSEX ANILINE WORKS

INC.

Manufacturers of Aniline Colors

88 Broad St., Boston South Middleton, Mass.

The Grasselli Chemical Co., Sole Sales Agts., 117 Hudson St., N. Y.

DO YOU USE

OLEUM

We have some facts of particular interest to consumers of Oleum

WRITE US!

Butterworth-Judson Corporation

Quotations and Product Samples on request

SALES OFFICE: 61 BROADWAY, NEW YORK

WORKS-NEWARK, N. J.

For f

DRU

Battel Butter Churc The C Comm

The Comm Contac Chas. Walte Diamo The I E. I. d

E. I. d B. G. Gener Goldsi Grasse Wm. R. W.

Wm. R. W. Innis Wm. A. Kl Abbot Baird

Baird
Antoin
Commic
Charle
Walte
The I
Eastm
B. G.

E. For T. Fur Grasse Willia Manue R. W. Heyde A. H.

R. W Heyde A. H. Butter Calco

Chemi Dow (Essex E. I. d Grasse A. Kli Meteo

Abbott Baird The Butter Calco Chatfi Chemic Comm Essex E. I. d

Antoi

M. L. W. J. Antoi

M. L. W. J. Walte E. Fo

P. Bl: Buffal The (Nashy

=

6

Buyers' Guide

For full particulars as to products and addresses see Index of Advertisers on the page following.

HEAVY CHEMICALS

Battelle & Renwick
Butterworth Judson Corpn.
Church & Dwight
The Cleveland-Cliffs Iron Co.
Commercial Solvents Corpn. Commercial Solvents Corpn.
Contact Process Co.
Chas. Cooper & Co.
Walter Denman
Diamond Alkali Co.
The Dow Chemical Co.
E. I. du Pont de Nemours & Co.
B. G. Feinberg
General Chemical Co.
Goldsmith Bros. Sm. & Refg. Co.
Grasselli Chemical Co.
Wm. S. Gray & Co.
R. W. Greeff & Co.
Innis Speiden & Co.
Wm. E. Jordan & Co.
A. Klipstein & Co. Litter & Allen
Merchants Chemical Co.
Meteor Products Co.
Meteor Products Co.
Mathieson Alkali Works
The Miner-Edgar Co.
Nichols Copper Co.
Pacific Chemical Co.
Pfaltz & Bauer
Protexol Corp.
Roessler & Hasslacher Chem.
Co.
Semet Solvay Co.
Solvay Process Co.
Stein Hall & Co.
George F. Taylor Co.
U. S. Industrial Alcohol Co.
Victor Chemical Works

Victor Chemical Works The Warner Chemical Co. Jacques Wolf & Co.

FINE CHEMICALS

FINE C.
Abbott Laboratories
Baird & McGuire
Antoine Chiris Co.
Commercial Solvents Corp.
Commonwealth Chemical Corp.
Charles Cooper & Co.
Walter Denman
The Dow Chemical Co.
Eastman Kodak Co.
Eastman Kodak Co.
Eastman Kodak Co.
Grasselli Chemical Co.
William S. Gray & Co.
Grasselli Chemical Co.
William S. Gray & Co.
Manuel Grey
R. W. Greeff & Co.
Heyden Chemical Co.
A. H. Higbie

A. Klipstein & Co.
Litter & Allen
Mallinckrodt Chemical Works
May & Baker
Merck & Co.
H. A. Metz & Co.
The Miner-Edgar Co.
Monsanto Chemical Works
N. Y. Quinine & Chemical Wks.
Pacific Chemical Co.
Pfaltz & Bauer
Powers-Weightman-Rosengarten
Roessler & Hasslacher Chemical
Co.
Stein Hall & Co.

Stein Hall & Co. U. S. Industrial Chemical Co. Victor Chemical Works

Butterworth-Judson Corp.
Calco Chemical Co. Of America
Dow Chemical Co.
Essex Aniline Works
E. I. du Pont de Nemours & Co.
Grasselli Chemical Co,
A. Klipstein & Co.
Meteor Products Co.

H. A. Metz & Co. National Aniline & Chemical National Annine & Cher Co. New Brunswick Chem. Co. Newport Chemical Works Sanborn Chemical Works Stein Hall & Co. George F. Taylor Co. Jacques Wolf & Co.

COAL TAR PRODUCTS

Abbott Laboratories
Baird & McGuire
The Barrett Co.
Butterworth-Judson Corp.
Calco Chemical Co.
Chaffield Mfg. Co.
Chemical Company of America
Commonwealth Chemical Corp.
Essex Aniline Works
E. I. du Pont de Nemours & Co.

Jordan Coal Tar Products Co.
H. A. Metz & Company
Monsanto Chemical Works
National Aniline & Chemical
Co.
Newport Chemical Works
Pacific Chemical Co.
Protexol Corp.,
Sanborn Chemical Works
The Walker Chemical Co.

Antoine Chiris Co. A. Klipstein & Co. New Brunswick Chem. Co.

FATTY OILS
National Oil Products Co.
George F. Taylor Co.
Jacques Wolf & Co.

ESSENTIAL OILS

Magnus, Mabee & Reynard Morana, Incorporated Van Dyk & Co.

CRUDE DRUGS

A. H. Higbie
Magnus, Mabee & Reynard
Morana, Incorporated
N. Y. Quinine & Chemical Wks.
Pfaltz & Bauer

EQUIPMENT

M. L. Barrett & Co. W. J. Bush & Co. Antoine Chiris Co. Fritzsche Bros.

M. L. Barrett & Co. W. J. Bush & Co. Walter Denman E. Fougera & Co. Manuel Grey

P. Blakiston's Son & Co.

Buffalo Foundry & Machine Co.
The Chemical Age
Nashville Industrial Corp.

Proctor & Schwartz
The Revue de Produits Chimique
The Yakugyo Shuho



THE NEWPORT **OUALITY**

Coal Tar **Products**

We have stocks of the following products at Passaic, N. J., ready for immediate shipment:

Alpha Naphthylamine Ortho Nitro Toluol Ortho Toluidine Para Toluidine Sodium Naphthionate H-Acid N W Acid R Salt Cleves Acid Guaiacol Para Nitro Toluol



Newport Chemical Works, Inc. Passaic, New Jersey

DRU

Solvents Absolute Alcohols Iodine (Distilled) **Higher Alcohols** Esters Alcohol Products Potash Salts Ether

Ethylene **Iodine Products** Carbon Dioxide Ammonium

Salts

Sales Offices:

BALTIMORE, South Baltimore

BOSTON, 943 Cambridge Street



CHICAGO, First National Bank Bldg.

DETROIT. Union Trust Building

NEW ORLEANS, 1008 Maison Blanche Building

NEW YORK, 27 William Street

U. S. Industrial Chemical Co.

ALCOHOL

PURE and DENATURED

FOR MANUFACTURING, INDUSTRIAL, SCIENTIFIC AND TECHNICAL PURPOSES

U. S. Industrial Alcohol Co.

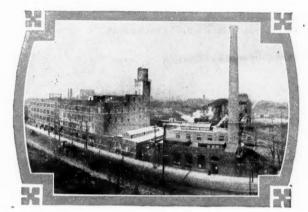
Executive Offices: 27 William Street, New York

Branch Sales Offices and Distributing Warehouses

NEW YORK
BALTIMORE
BALTIMORE
BALTIMORE
BALTIMORE
A. L. Webb & Son, Inc.,
50-52 Stone Street
A. L. Webb & Sons, Inc.,
201 Maryland Trust Building
PHILADELPHIA
BOSTON
U. S. Industrial Alcohol & Chemical Co.,
141 North Front Street
U. S. Industrial Alcohol Co.,
943 Cambridge St., E. Cambridge, Mass.
U. S. Industrial Alcohol Co.,
4th and Pennsylvania Streets
U. S. Industrial Alcohol Co.,
First National Bank Building
ST. LOUIS
U. S. Industrial Alcohol Co.,
1434 North Broadway
U. S. Industrial Alcohol Co.,
1490 West 10th Street
U. S. Industrial Alcohol Co.,
1008 Maison Blanche Building
U. S. Industrial Alcohol Co.,
601 Empire Building
U. S. Industrial Alcohol Co.,
601 Empire Building
U. S. Industrial Alcohol Co.,
616 Union Trust Building
U. S. Industrial Alcohol Co.,
129 North Davidson Street
U. S. Industrial Alcohol Co.,
U. S. Industrial Alcohol Co.,
129 North Davidson Street
U. S. Industrial Alcohol Co.,
Evans St. and C. H. D. R. R. Crossing
U. S. Industrial Alcohol Co.

Index To Advertisers

Abbott Laboratories4th cover
Baird & McGuire
The Barrett Co
M. L. Barrett & Co
Battelle & Renwick
Buffalo Foundry & Machine Co
W. J. Bush & Co
Butterworth-Judson Corp
Calco Chemical Co
The Chatfield Mfg. Co
The Chemical Age
Chemical Co. of America
Antoine Chiris Co
Church & Dwight
The Cleveland-Cliffs Iron Co
Commercial Solvents Corpn
Commonwealth Chemical Corp. 316 Contact Process Co. 314
Charles Cooper & Co
Walter Denman
Diamond Alkali Co
The Dow Chemical Co
E. I. du Pont de Nemours & Co.,
Dyestuffs Department2nd cover
Acids & Heavy Chemicals Div
Intermediates Department
Eastman Kodak Co
Essex Aniline Works
B. G. Feinberg
E. Fougera & Co
Fritzsche Bros 308
F. Fujisawa & Co
General Chemical Co
Goldsmith Bros. Smelting & Refining Co
Grasselli Chemical Co
William S. Gray & Co4th cover
Manuel Grey
R. W. Greeff & Co
Heyden Chemical Co. of America
A. H. Higbie
Innis Speiden & Co
Jordan Coal Tar Products Co
William E. Jordan
A. Klipstein & Co
La Revue des Produits Chimiques
Litter & Allen
Mathieson Alkali Works
May & Dalam 306
Merchants Chemical Co
Merck & Co
Meteor Products Co.
The Miner-Edgar Co
Monsanto Chemical Works
Nashville Industrial Corpn
National Aniline & Chemical Co4th cover
New Brunswick Chemical Co
Newport Chemical Works
New York Quinine & Chemical Works
Pacific Chemical Co
Pfaltz & Bauer
Proctor & Schwartz
Protexol Corpn
The Roessler & Hasslacher Chem. Co
Semet-Solvay Co
Solvay Process Co
George F. Taylor Co
U. S. Industrial Chemical Co
U. S. Industrial Alcohol Co
D. Vecchini
Victor Chemical Works
The Warner Chemical Co
Mallinckrodt Chemical Works .4th cover Mathieson Alkali Works .206 May & Baker .206 Merchants Chemical Co. .314 Merck & Co.
The Valencyo Shuho
inc lanugyo Dinano ilitaro



CHICAGO PLANT

Continuity of Purpose

The idea of a specialized service centered upon a chosen group of products was born within this organization fifty-six years ago.

Through periods of both industrial expansion and depression a policy of *uniform product value* has stood unshaken.

This continuity of purpose, under the expert administration of able representatives, has moulded favorable opinion as reflected by the generous trade response of a varied clientele.

STEIN, HALL & COMPANY, Inc.

MANUFACTURERS AND DIRECT IMPORTERS OF STARCHES—DEXTRINES—GUMS OXALIC ACID

61 BROADWAY

NEW YORK CITY

HELIOTROPINE

Manufactured at Linden, N. J.

W. J. BUSH & CO., Inc.

370 7th Ave., NEW YORK, N. Y.

Creosote

Pure and Carbonate

Guaiacol

Pure and Carbonate

Inquiries Solicited

Mallinckrodt Chemical Works

St. Louis-Montreal-Philadelphia-New York



"National" Service

The National Aniline & Chemical Company, Inc. is convinced that the essence of all good-will is intelligent service It confidently believes that an earnest effort to assist those who use dyestuffs will result in improvements beneficial to customers, to the public and to itself.

NATIONAL ANILINE & CHEMICAL COMPANY, Inc.

New York Office: 21 Burling Slip

San Francisco

Boston Chicago Hartford Charlotte Montreal Toronto

Providence Philadelphia



Podophyllin

SYNTHETIC CHEMICALS-ALKALOIDS EXTRACTS

Write for Prices

The Abbott Laboratories

4739-53 RAVENSWOOD AVENUE
CHICAGO ILL.

WM. S. GRAY & CO.

342 MADISON AVE.

New York City

WHITING

